Palmtop

The journal for Psion computers and compatibles

Contacting Palmtop

Any comments or suggestions regarding the content of Palmtop magazine should be directed to the Publishing Editor at the following address:

Palmtop Publications
PO Box 188
BICESTER
Oxfordshire
OX26 6GP
ENGLAND

Tel: +44 (0)1869 249287
Fax: +44 (0)1869 246043
Email (general): *info@palmtop.co.uk*
or (to contact the Publishing Editor): *editor@palmtop.co.uk*
(no technical support or buying advice)
World Wide Web: *www.palmtop.co.uk*

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(Volume 6, issue 5)

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EDITORIAL

Few Psion users could fail to have been shocked by the news on July 11th that Psion is to cease development of handheld devices. It's no secret that the computer world is going through an exceptionally tough time at the moment, and the PDA world doubly so, but Psion's announcement was still a major bombshell.

Although production of the Revo, Revo Plus and 5mx is likely to continue for up to a year or so (depending upon demand), the official word is that we can currently expect no new Psion handhelds to be developed.

However, development of the netBook sub-notebook will continue, and following Psion's initial announcement of the pullout, its officials have gone to considerable lengths to emphasize that further development is 'on hold', rather than cancelled.

Whether this translates into a possible return to the palmtop computer business in the longer term remains to be seen, but it's far too early to write Psion off yet. The rumoured Bluetooth Revo device that was (according to Usenet newsgroups, at least) allegedly close to completion at the time of Psion's announcement may indeed be simply on hold. With the current global economic climate and the unexpectedly slow takeup of Bluetooth technology in general, there are plenty of reasons why the time's not yet ripe for such a device.

Also, it's no secret that handheld computers remain close to the heart of David Potter, Psion's founder and Chairman, whose fledgling company virtually coined the term 'personal organiser' back in the 1980s. You can bet that if there's the possibility of breathing new life into Psion's handheld division then Mr Potter will be pushing very hard to make it happen.

Steve Clack - August 2001

Palmtop is...

Steve Clack - Publishing Editor

Rosemary Rolfe - Distribution Manager

Christian Hayle - Artwork & Design

Tracy Braham - Subscriptions

Steve Litchfield - Sub-Editor

Pete Sipple - Technical Contributor

John Woodthorpe - Senior Contributor

Thanks... to all the other contributors whose names appear within Palmtop and those who have kindly supplied products for evaluation.

EPOC cartoons - Carl Reader

Printed by Century Web

NEWSREEL

What's new in the world of EPOC and Symbian

Psion withdraws

After 17 years in the forefront of the handheld and palmtop market, Psion has finally called time on new palmtop development. Amidst a massive global downturn in the computer and technology world, Psion has cut its losses, announcing the loss of 250 jobs at Psion Digital (out of 450 in all) and writing off almost £30 million in related expenses.

Psion "has decided to focus its future strategy on industrial and enterprise markets through Psion Teklogix; innovative markets in digital appliances through a restructured Psion Digital; and on its strategic investment in Symbian."

The rumoured forthcoming Bluetooth-equipped Revo variant has been shelved, leaving only support for Psion's existing models, including the Revo Plus, Series 5mx and Series 7. Psion are betting their immediate future on their Teklogix branch, which will actively continue to develop the netBook.

Financial analysts have put a positive spin on proceedings by pointing out that this was Psion's best long term chance of survival, with perhaps a re-emergence into active development when Bluetooth has taken off and when conditions are more favourable. An official Psion spokesman hinted "There will be more Psion consumer products in the future."

Psion will keep its existing palmtop range in the shops as long as possible and has pledged to honour warranties and provide hardware and software support for owners until at least December 2004.

www.psion.com

PsiWin 2.3.3 now out

With no formal publicity, there's a new, free release version of PsiWin. 2.3.3 has full support for Windows 2000 and Office 2000, and rolls in fixes for problems found in PsiWin 2.3.2. The download is free, but over 20MB and will take well over an hour using a standard 56k modem.

www.psion.com/downloads

TripManager

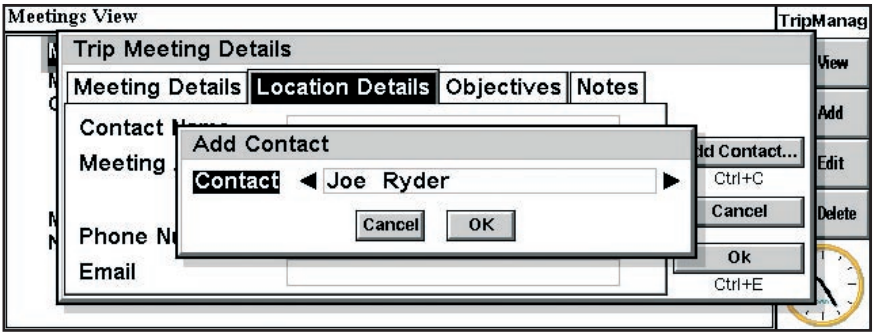
Estuary Technologies has announced TripManager, an application for managing travel information. It will be available for both ER5 and ER6 and enables users to track a wide range of information about their travel plans, including transport, accommodation, expenditure and meetings. TripManager is integrated with Agenda and Contacts, ensuring that the user does not have to enter information twice and that all trip details are in the one place. Expense reports can be exported to Excel for easy report production.

www.pocketmanager.com

2001 Michelin

The 2001 editions of The Michelin Red Guide for France and Europe are now available. Among the new features in this year's edition are:

- Rapid access to the list of establishments containing a special mention.



- Extensive research criteria, by keyword and locale. Thus you can select a restaurant close to a particular hotel, look for a 'star' restaurant within a given distance of your current position, etc.
- The possibility to save a favourite selection and add personal comments for future reference.

The complete Michelin Red Guide for Europe requires 2.4MB to install, but all countries can be installed separately, averaging 120K per country. The program runs in English, French, German, Italian and Spanish.

www.palmtopsoftware.com

ER6 information centre

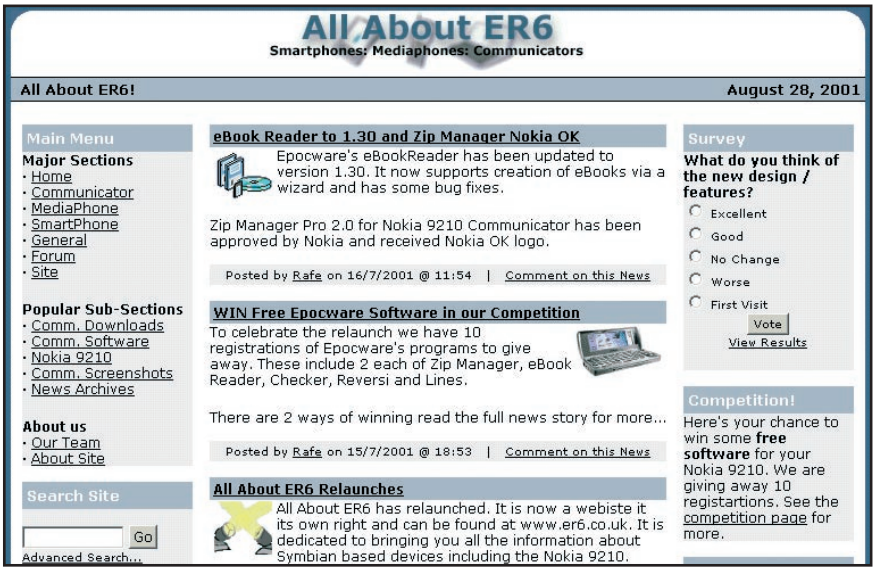
Newly relaunched is 'All About ER6', featuring news and features from the world of EPOC Release 6 (as used by the Nokia 9210 and future smartphones and communicators). The site also includes a discussion forum, a visitor survey, a competition and a download area for new ER6 software.

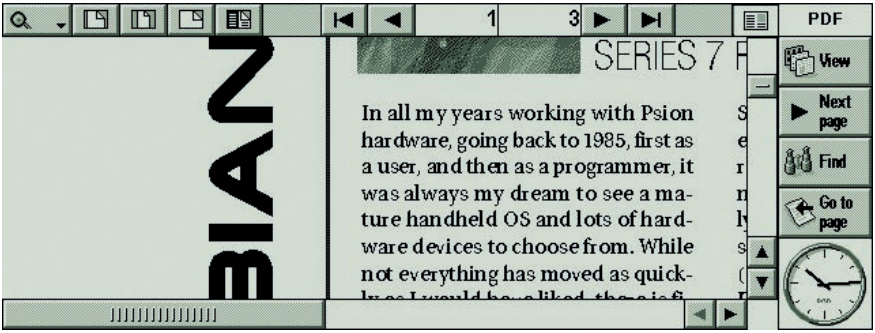
www.er6.co.uk

OPL to run on 9210

Symbian has released an alpha version of the OPL Runtime, designed to run on the Nokia 9210 Communicator. The Runtime 'engine' is the core component that lets applications created in OPL run under EPOC. Several authors have reported minor issues with the alpha version and anyone installing it in order to run OPL-written shareware on their 9210 should also make a note to check back regularly for updates.

www.symbiandevnet.com/downloads/downloads.html





Pdf+ marches on

The ground-breaking PDF viewer, Pdf+, has recently been upgraded to 1.10. New in this version are:

- Display of embedded fonts.
- Column mode, in which Pdf+ scans around a two column layout to present text in the correct order.
- Font substitution, should you wish to change the displayed font.

www.mBrainSoftware.com

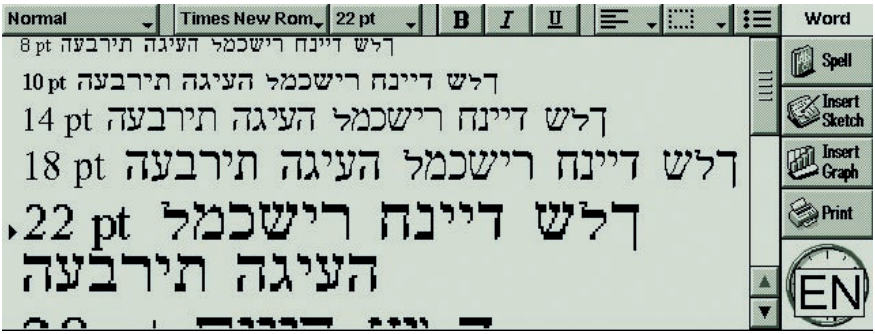
EPOC speaks Hebrew

Paragon Software has announced Hebrew EPOC, a localisation system including Hebrew fonts, a Hebrew keyboard driver, text selection and a sorting engine. Using the system, Psion device owners can input text in the Hebrew language in any application. The package includes special printer drivers.

www.penreader.com

Real content

RealNetworks, recently allied with Symbian, has announced a number of commercial content partners. The media partners, including Virgin Radio, BMG Entertainment, Kirch New Media, TF1, Darker Than Blue, Aestheticom and Supersoni.com, will provide content for users of RealPlayer Mobile, included with the Nokia 9210 Communicator. The content will be avail-



able free of charge in English, German and French from a newly created RealNetworks portal. Symbian will also launch a multi-media centre on its web site, where users can download the RealPlayer free of charge to compatible Symbian devices.

www.symbian.com
www.real.com/player/mobile

Symbian Expo 2001

Symbian has announced its Developer Expo 2001, this year set in the exotic Catalonia Palace of Congresses, Barcelona, Spain, on November 6th and 7th. The registration fee for professional developers is £900 (+VAT), although anyone also wanting a Nokia 9210 should note that if you register before October 8th you can get a unit for only £400 (+VAT), as part of a special Nokia deal.

www.symbian.com/devexpo2001/9210offer.html

Psion 618C launches

Psion has launched its first Chinese language palmtop, addressing a market that analysts estimate grew beyond three million units last year. Users will be able to buy the Psion 618C from Synnex Technology International, the largest computer distributor in Taiwan.

The Psion 618C is based on the 8MB Revo and is available in two distinct versions: Simplified and Traditional. For the Taiwanese and Hong Kong markets, the Traditional version offers five Chinese input methods, including Zhu Yin, Chang Jie, Pin Yin and Handwriting Recognition. For Mainland China, the Simplified version offers three input methods, including Pin Yin and Handwriting Recognition.

www.psion.com

netpad launch imminent

The long-awaited half-VGA netpad ruggedised tablet is due for release by Psion Teklogix at the end of September. We'll be including a first look at this novel device in the next issue of Palmtop.

www.psionteklogix.com

5mx and Revo RAM upgrades

D & G Upgrades Ltd in Watford are now offering a mail order memory upgrade service for EPOC machines. They can upgrade a Revo to 16MB or a Series 5mx, Revo Plus or Diamond Mako to 32MB. Prices start from £50, plus postage and packing.

www.pda-upgrade.20m.com

INDUSTRY NEWS

In this regular feature we devote a single page to what's happening in the non-EPOC sector of mobile computing...

Biggest news this issue comes from Palm Computing. The company has been forced to review its 4th quarter outlook in the form of a 50% cut, from an estimated $300 million to around $150 million. This is primarily due to the company recently having to write off stock worth an estimated $300 million. The main reasons for the decline include a slump in the US economy, followed by the announcement of two new Palm devices, the m500 and m505. The release of these latest products heralded a halt in the shipping of older Palm devices and more bad news was to come in the form of serious shipping delays of the two new computers. In order to combat the downturn, Palm has had to cut retail prices of its older devices and cancel some plans to expand the company.

At the same time, Palm has announced that it will form a wholly owned subsidiary to contain the Platform Solutions Group, which develops the Palm OS platform and licenses it to makers of handheld computers including HandEra, Handspring, Sony, Symbol, Kyocera and Samsung.

The industry remains uncertain for many mobile computing companies. Many have been reporting a slowdown in sales and are predicting hard times ahead. Palm has had to lay off around 10% of its workforce, despite increased sales over the last 12 months (albeit not as high as expected).

Other companies are faring less well. Compaq has already laid off 700 of its staff in Scotland and it is rumoured that another 5000 jobs worldwide will soon be shed. This is despite the fact that the company has been very successful over the past year, having achieved a ten-fold growth rate and now commanding an estimated 12% of the handheld market according to Catalyst analysts.

Casio is now reported as holding 9.5% of the market. However, the company has announced that it will not be updating any of its Pocket PC devices in 2001. Although existing Pocket PCs will continue to be sold, Casio intends to concentrate on expanding existing collaborations with mobile communication giants Vodaphone and Siemens.

Andy Nott

Shareware Shorts

Steve Litchfield, maintainer of the Palmtop/3-Lib CD-ROM, takes a look at the latest additions to the world of shareware...

Don't worry that we're about to launch Shareware Shorts straight into the world of Nokia 9210 shareware, as if cutting edge hardware was all that mattered and as if EPOC Release 6 was the only platform now now being developed for (which it isn't). As you'll gather from our long term 9210 review on page 31, Nokia's new ER6 unit is most definitely not an automatic upgrade for existing Psion owners, and there's still new ER5 software appearing every week.

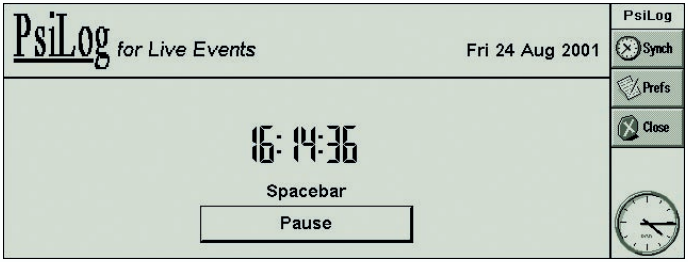
Time logging

Julian Rush's Psilog is a freeware tool, for the Series 5 range only, to help TV producers and reporters to log exact timings. A press of the spacebar and the clock 'freezes' for a few seconds (the delay is adjustable), enabling you to read it and scribble it down on the appropriate form or workbook. When the clock resumes, it's back in real time, waiting for the next event to be timed and press of the spacebar.

www.dc68.dial.pipex.com

Project Expert

The shareware ProjXpert is yet another all-in-one tool from **Corisoft** (**Eric Sebban**), this time geared towards project management. For each project you can store appointments, to-dos and contacts, tracking



Psilog in action during an event

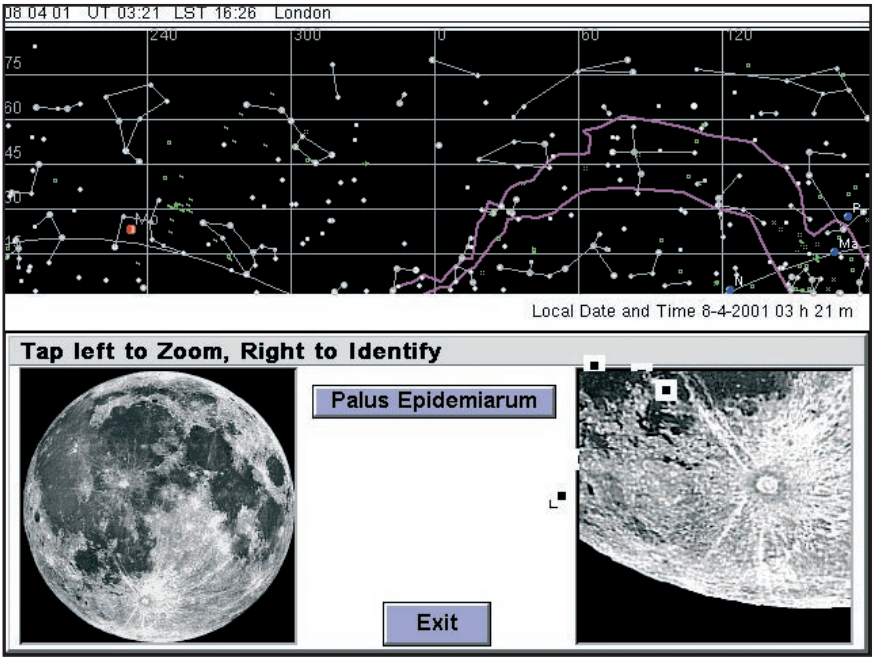
Project information at your fingertips in ProjXpert

tasks, costs, problems, expenses, documents and relevant phone calls. ProjXpert uses the usual range of OPXes to ensure that information in Contacts and Agenda can be used and entered directly. A set of colour icons is available for use on the Series 7 and netBook.

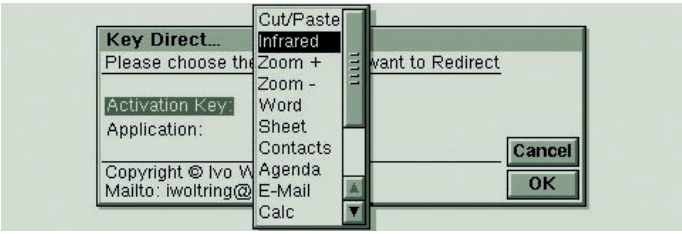
corisoft.free.fr

Colour at night?

John Sussenbach's shareware Procyon XL (presumably for Xtra Large) takes advantage of the larger screen of the Psion Series 7 and netBook to provide all the classic Procyon astronomy features (star charts, planet information, etc.) together with full colour support, better use of



The night sky as you've never seen it before, in Procyon XL



Selecting a silk-screen icon in KeyDirect

the touch-screen and faster operation. In addition, a new feature, 'Moon-zoom', has been added.

www.sussenbach.myweb.nl/procyonxl.htm

Help with SQL

Sheet2SQL is a small freeware utility by **Ivo Woltring** that transforms Sheet files to SQL-Insert statements. If you're not sure what SQL-Inserts are then don't worry, this tool isn't for you. It's especially useful for database programmers, who can create test datasets in Sheet and use this tool to convert the information for insertion into a corporate database.

home.hetnet.nl/mr_2/164/thedolphin/Epoc

Bringing down Extras

Also freeware by **Ivo Woltring** is KeyDirect, a utility that allows redirecting of 'silk screen' soft keys to launch applications that normally require a hunt and peck round the Extras bar. Standard EPOC functionality such as tapping the soft key again to go to the next open file for that application is also included.

home.hetnet.nl/mr_2/164/thedolphin/Epoc

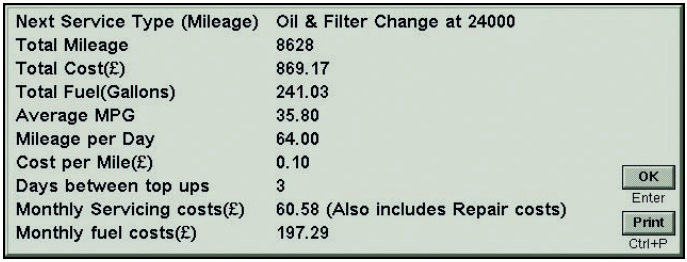
Motoring Expenses

Matthew Chapman's shareware Motoring Expenses is designed to help you keep track of your monthly motoring expenditure, supplying reports and statistics and helping to remind you when servicing of the vehicle is due. It can keep track of a number of vehicles at the same time and can also produce fuel consumption graphs.

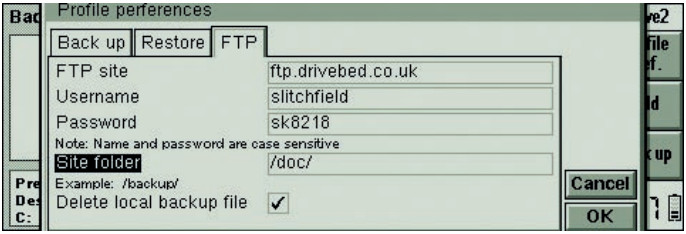
www.motorexpense.co.uk

Connecting you...

Aimed at all those people frustrated by the idiosyncrasies of PsiWin, is the shareware 2ConnectU, from **2K Systems**, the developers who brought you XConverter



Motoring Expenses in gory detail



Look, no PsiWin or CF disk—setting up a backup to a private FTP site

(reviewed in issue 33). Using the bulk of the XConverter conversion facilities, they've bolted on a complete TCP/IP connectivity solution, for connection of your EPOC palmtop to PC, Macintosh and Linux/Unix computers.

Once set up, all the conversion intelligence resides on the palmtop and all that's required on the desktop are administration rights to configure TCP/IP, a PPP server and a modern web browser. The software allows not only backup, restore and file conversion, but also extensive printing facilities and direct editing of individual Agenda entries on the desktop.

From the instructions supplied with the software, however, we have thus far failed to make a successful connection to either PC or Macintosh computers. If we can persuade the software to work then we will of course run a full review in a future issue of Palmtop.

www.2ksystems.at

...and backing up

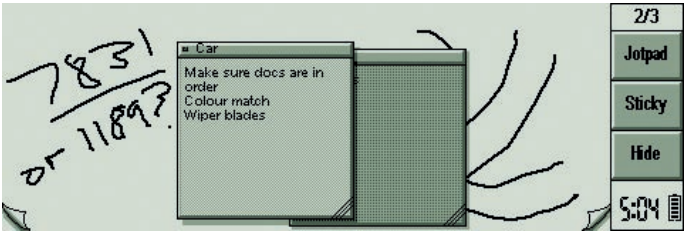
Also designed to alleviate reliance on PsiWin is EpocBackup, by **FatCatz**, the author of MagicKeys and Solitaire Deluxe, among others. The utility can back up to a CompactFlash card or to an FTP server at the tap of a button. The backed up files can be compressed (and encrypted) using the industry standard ZIP format, for later transmission and unzipping on other computer platforms. EpocBackup is 'commercial' software, with a severely restricted demonstration version available.

www.fatcatz.net

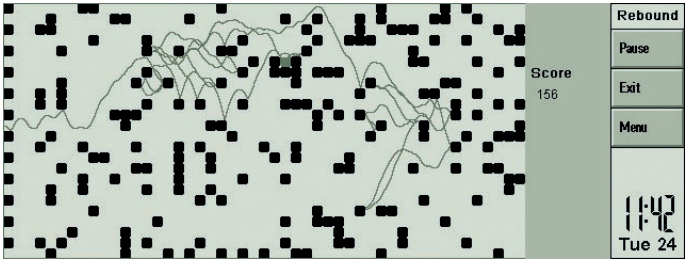
A Klip in time

New from **Palmanac** is the freeware Klip, which offers to remember up to 12 snapshots of your EPOC clipboard, for later reuse. To enter text into a slot, just copy it into the standard EPOC clipboard, make sure Klip's in 'Backup' mode and tap on a slot number. It's slickly written and easy to

Klip's button interface and preferences dialog



Sticky notes and doodles in Revonote



Much harder than it looks—Rebound on the Series 5

configure, although the inability to view the contents of each slot is a great pity.

www.palmanac.co.uk

Look familiar?

Jason Kneen's shareware Revonote provides unlimited 'sticky' notes that hang around on-screen to remind you of important things to do. At least they're supposed to, though the unregistered version doesn't allow their display on top of other applications, which rather limits how effectively anyone can test the idea's usefulness. The Revonote background is a multi-page doodling pad, with several pen thicknesses available.

www.revoworld.com

Rebound

Freeware from **CarrotSoft**, Rebound is a very original game in which you help guide a bouncing ball through a maze of randomly scattered blocks. Gravity acts downwards on the ball while you give it upwards momentum with a keypress. Every bounce off a block adds a new twist to the trajectory.

www.carrotsoft.com

Splitting the atom again

Also by **CarrotSoft** and also freeware is Splitter, in which you nominate squares on a special grid. On each choice, a spot appears on the square and when each square reaches critical mass it explodes (splits), scattering spots onto adjacent squares and potentially taking over an opponent's tile.

www.carrotsoft.com

Gambling on the small screen

My own freeware Poker comes to the small screen of the Revo, courtesy of Johnnie Walker, who kindly ported it recently. It's freeware and based on the old Video Poker

Nokia 9210 UPDATE!

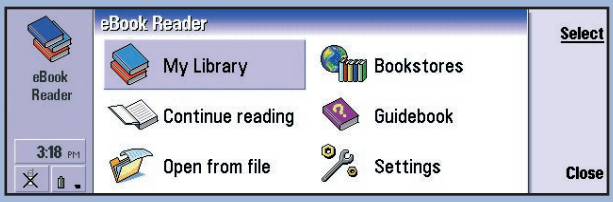
As a gentle introduction to the world of shareware for EPOC Release 6 and the Nokia 9210, here's a roundup of what's available so far (or about to appear in the very near future):

ABP Banking - bank account management system, freeware, from *www.freepoc.org*

CityMaps- street level mapping and route planning, commercial, £TBA, from *www.palmtop.nl/crystal/citymaps.html*

Collins Cobuild English Dictionary - comprehensive English dictionary, commercial, £TBA, from *www.palmtop.nl/crystal/cobuild.html*

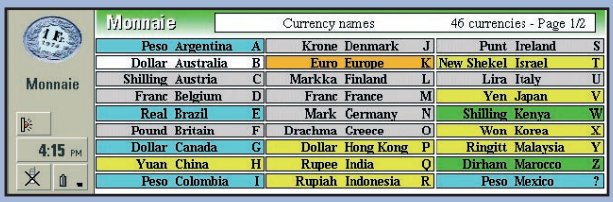
Collins English to French/German/Italian/Spanish Dictionaries - bi-directional language dictionaries (sold separately), including example phrases and hypertext functions, commercial, £TBA, from *www.palmtop.nl/crystal/collinsf.html*



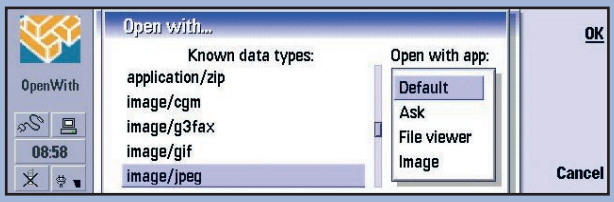
eBook Reader - general purpose ebook reader, shareware, $19 from *www.epocware.com/nokia/reader.html*

Michelin Red Guide Europe 2001 - hotel and restaurant guide, commercial, £TBA, from *www.palmtop.nl/crystal/micheline.html*

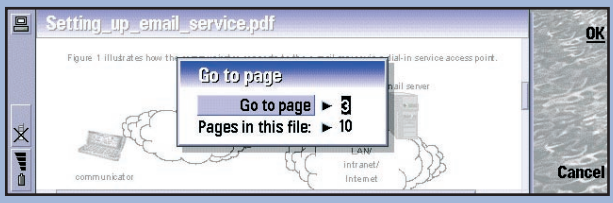
Michelin Red Guide France 2001 - hotel and restaurant guide, covering France only in more detail, commercial, £TBA, from *www.palmtop.nl/crystal/michelinf.html*



Monnaie - currency converter, with Internet update, shareware, £TBA, from *www.kylom.com*



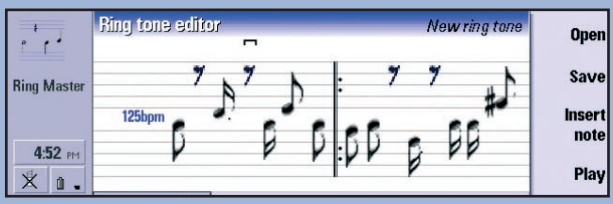
Open With - associates generic file types with specific ER6 applications, shareware, $15, from *www.psiloc.com/nokia/eng/openwith*



Pdf+ - Acrobat PDF viewer, commercial, $22, from *www.mbrainsoftware.com/Nokia/Pdf/Pdf.htm*

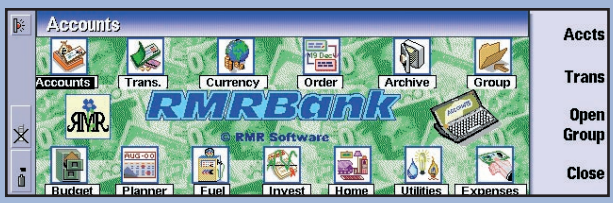
Plan6 - project planning system, shareware, £TBA, from *www.twiddlebit.com*

Pro'Lingua Translator - English-German language dictionary, commercial, DM129, from *www.yellow.de/prod/nokia/e_prod_nokia_k_pln9210.stm*



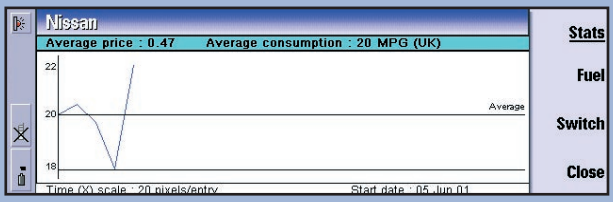
RingMaster - create/edit ring tones, including MIDI import, shareware, £10, from *www.zenobyte.com/9210/ringmaster.html*

Route Planner - country-wide route planning for most European countries, commercial, £TBA, from *www.palmtop.nl/crystal/route.html*



RMRBank - comprehensive bank account and personal finance system, shareware, $30, from *www.rmrsoft.com*

RMRExpense - standalone module taken from RMRBank, handling expenses, shareware, $15, from *www.rmrsoft.com*

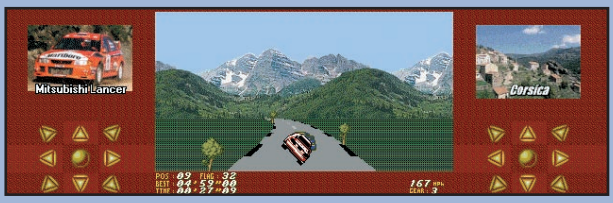


RMRFuel - standalone module taken from RMRBank, handling motoring expenses, shareware, $15, from *www.rmrsoft.com*

SideCalc - small, but powerful, calculator that 'floats' on top of the current application, shareware, £TBA, *www.kylom.com*

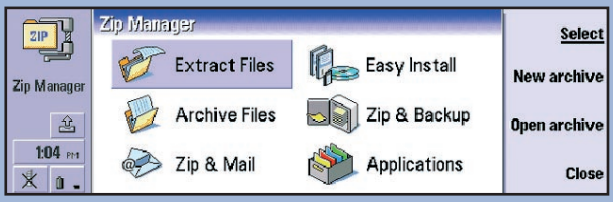
Task Manager - utility to close down applications and optionally reboot, shareware, $10, from *www.psiloc.com/nokia/eng/taskman/index.html*

Terra Force - 3D shoot 'em up, shareware, $8, from *www.wildpalm.co.uk/tforce9210.htm*

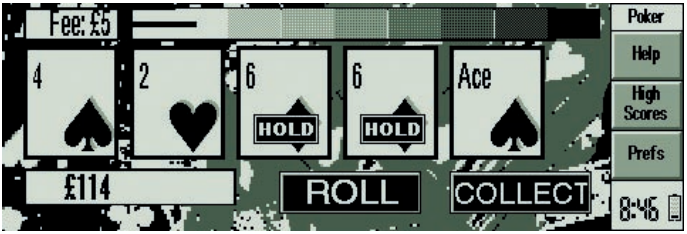


V-Rally - arcade first-person driving game, commercial, £TBA, *www.palmtop.nl/crystal/vrally.html*

YZIP - ZIP archive manager, commercial, DM50, from *www.yellow.de/prod/nokia/e_prod_nokia_k_yzip9210.stm*



ZIP Manager - ZIP archive manager, including wizards, shareware, $19, from *www.epocware.com/nokia/downloads.html*



Poker, now available for the Revo

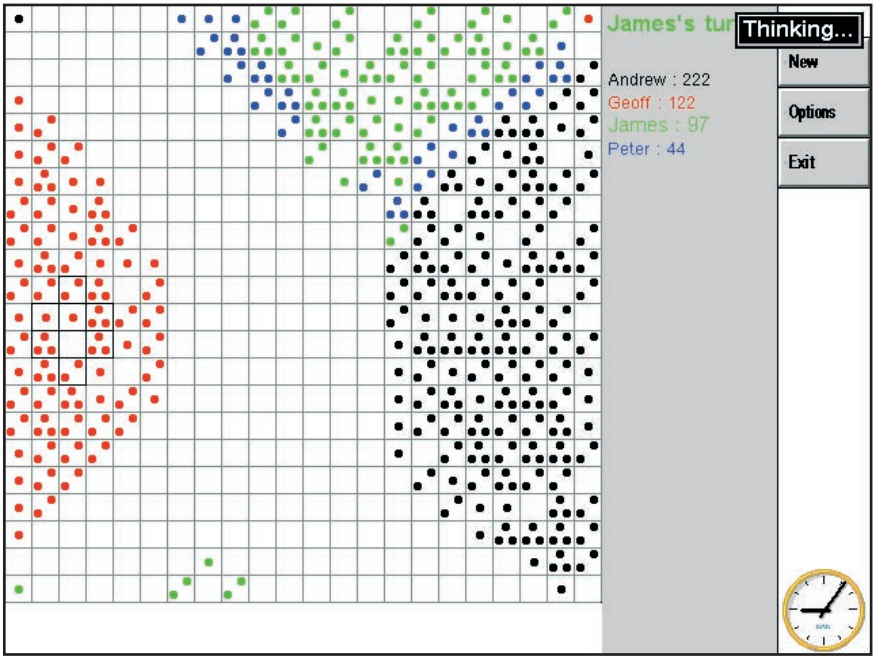
game, with a strategy element introduced by a gradually increasing stake – how long can you go on before the risks get too high?

3lib.ukonline.co.uk

Crazy for you

This one's an old shareware favourite of mine, now updated for the Series 7 and netBook. Fruit Crazy is possibly Ben Vaughan's best game, billed as 'the ultimate fruit machine simulator'. The usual animated graphics and sound effects are there, plus advanced features such as nudges, features, gambling and an assortment of bonus games, including 'Hi-Lo' and 'Car race'.

www.bjv.btinternet.co.uk



Splitter running on a Series 7

What is shareware?

Written by professional programmers and enthusiasts, shareware is often supplied for use on a 30 day trial basis. If you like the software you are asked to send a payment to the author. Some programs are freeware and don't require any payment at all. Each program comes complete with information about how to install and use it, and how to pay for it.

Where can I find it?

One way to get any of these programs is from the Internet. If you've got access to the web then there are several on-line indices (e.g. at *www.epocsoftware.com*) which link directly to the relevant author download page concerned. Things are just as easy if you haven't got Internet access: as long as the program has been out for a few months, you should find a copy on the latest edition of the Palmtop CD-ROM, indexed into the appropriate category.

How do I use it?

Once you've found the file you want, there are three steps you may need to take:

1. Decompress the file, if necessary. Most applications on our Palmtop CD will already have been decompressed for you, but those on the Internet will almost certainly be 'zipped', to save bandwidth. If you've never seen a ZIP file before, install an unzipping utility onto your desktop or palmtop computer. For PC users, the most common is WinZIP (which can be found on most PC magazine CD cover disks); for Macintosh users, try ZipIt; for EPOC itself, get RMRZip (from *www.rmrsoft.com*). Once installed, you can double-click on any downloaded ZIP file and it will be automatically expanded into its component parts.
2. Examine the files available. Most programs come with a welcoming README.TXT file, which you can read in any text editor or word processor. This should explain how to install the application and how to register it. Sometimes the latter is described inside the program's help screens instead. Well-behaved EPOC applications come as one or more SIS files, e.g. 'mygame.sis'. These can be double-clicked on to install them directly using a serial (PsiWin) link to your palmtop. If you experience problems at this stage, it's worth noting that you can also copy SIS files onto your palmtop and double-tap on them there instead, from the System screen.
3. The newly installed program will automatically appear on the Extras bar. Press the 'Extras' application icon to check and to launch the software.

Shareware availability

Please note that, by definition, many of the latest items featured in Shareware Shorts will *not* appear on existing Palmtop CDs, but on subsequent pressings of the disk. If you wish to receive every edition of the CD then see page 126 for details. To find the latest version of the programs mentioned here, go to the relevant author's web site as given in the text.

The vast majority of EPOC applications mentioned in Shareware Shorts run properly on the Psion Series 7/netBook, Series 5/5mx, Revo/Revo Plus/Diamond Mako and compatibles, unless otherwise stated. If a program misbehaves on *your* EPOC computer, check the author's web site first and then email them if necessary.

A Closer Look

...at some of the newest and most interesting products for your palmtop

Star Ratings:

★★★★★	Excellent
★★★★☆	Good
★★★☆☆	Average
★★☆☆☆	Fair
★☆☆☆☆	Poor
☆☆☆☆☆	Dismal

Interpreting reviews

Quality: the *Quality* star rating reflects how well the product works, whether it includes all the features you'd expect, whether the interface is consistent and easy to use, and in data-based software products it also reflects the quality of the information contained in the program.

Value: the *Value* star rating reflects the value for money of the product, taken within the context of what the program (or other product) does. Therefore a simple utility program will be rated differently to a sophisticated application at the same price.

Does it work on my palmtop?

Items reviewed should work with the Psion Revo and Revo Plus/Diamond Mako, Series 5/5mx, Series 7/netBook and Ericsson MC218 unless otherwise specified, though some programs may not currently support colour or utilise the full screen size of the Series 7 and netBook.

Programs *may* run on the Oregon Scientific Osaris, though part of the display may be clipped due to the Osaris' smaller 320x200 pixel screen. Osaris users should always consult the program developer before purchasing.

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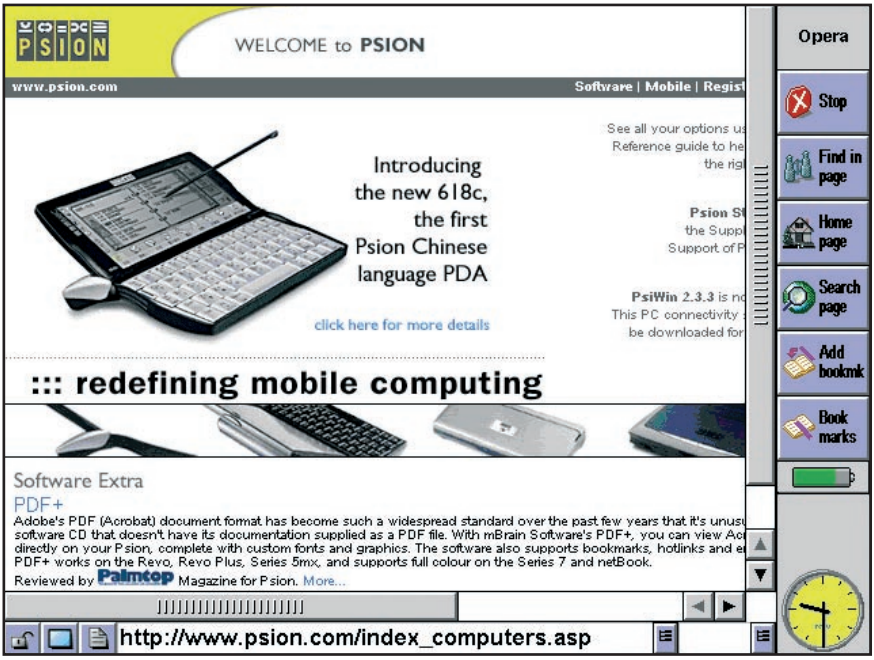
Opera 5

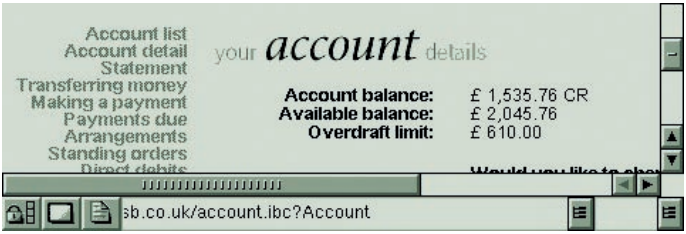
"Not *another* review of Opera?", I hear you ask. Yes, indeed, but there's good reason for the continued coverage. Full access to the richness of the World Wide Web is a 'killer' application, perhaps even *the* killer application for EPOC palmtops. Symbian's own Web application is extremely poor in more ways than I can recount here, but Opera continues to forge ahead, here with the brand new version 5 (5.12, to be exact).

Our last look at Opera was back in issue 30, reviewing version 3.62, which performed competently on the majority of sites but which required a degree of expert 'tweaking' to go the extra mile on more complex or demanding web sites. Opera version 5 on both Windows and EPOC platforms is in many ways something of a rewrite, with new features and new ways of doing things. And I'm glad to report that (free memory permitting) it coped with absolutely everything I threw at it.

Quite apart from bug fixes and improvements to the interface itself, there are a lot of new features. Java applets are supported (assuming Java is installed on your EPOC palmtop, of course), as are Javascript 1.3 extensions. There's a brand new bookmark manager, complete with hierarchical organisation and extra fields for site nicknames and access notes. Bookmarks from v3.62 are successfully recovered and converted over into the new format. Problems with child windows and popup ads and dialogs



Web browsing as it's meant to be, with the power of Opera 5



Online banking without problems

You might have to scroll a little, but even complex pages render properly

Not the fastest site in the world, but FT.com is at least accessible now

are now a thing of the past, with proper support for multiple windows. Although each runs 'full screen', you can select and close a window at any point from the menu pick list, and Opera's rendering engine now supports the latest HTML 4.0 and CSS level 2 web page standards.

At the risk of pages requiring more left-right scrolling than before, Opera now recognises that many sites are designed to work at specific page widths and that it's best to leave them this way. I found that pages were rendered surprisingly accurately and quickly, especially on a netBook. For anyone used to version 3.62 (or even Psion Web) this latest version of Opera should come as a revelation.

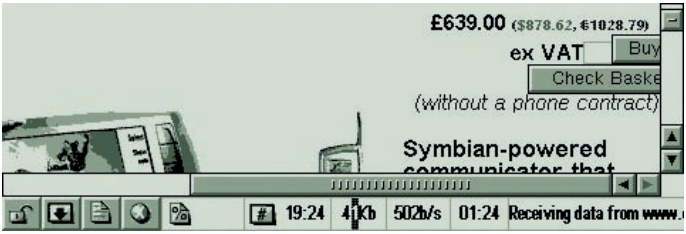
The developers have made far more of an effort this time around to make sure Opera is tailored to EPOC, with the past criticisms about shortcut keys and documentation being largely sorted out. The help file is now very useful and only occasionally confusing. The 'Save page and images as...' command now works as advertised, although do make sure you specify the destination folder sensibly as all the (potentially dozens of) page component files are dumped in the same place.

In fact, having to save interesting pages for later offline viewing is mostly rendered

New and comprehensive bookmark support

unnecessary by another of Opera's features, the excellent 'Special window | Cache' command. This brings up a complete hypertext display of every HTML page and image in the cache, and tapping on any of these brings them up for display without having to go online at all. Related to this is 'Special window | History', displaying every web page you've visited, sorted in reverse chronological order and date and time-stamped. Again, tapping on any of these will display it from the cache if present, otherwise starting up an Internet connection to grab it afresh. A final 'Special window | Transfers' command brings up a window that normally hides in the background, with details on all files you've downloaded (or are still downloading—Opera can handle up to 20 separate file transfers or HTTP requests *at the same time!*)

Secure online ordering is a breeze



Using Opera on a Revo...

...to buy the new Nokia 9210 Communicator online!

Opera's always been big on configurability and the new version 5.12 is no exception. I counted no fewer than 28 separate dialogs, each with half a dozen different settings. With such subtleties and technicalities as 'Disk' vs 'RAM' caches, 'Server error response handling', 'Document' vs 'User' modes and a mountain of CSS (Cascading Style Sheet) options, it would be very easy to give up in the face of Opera's sheer ambition. Luckily, the default settings are sensible in every single case and you can leave them well alone. On the other hand, if you have a penchant for tinkering with web browsers, there's enough to adjust here to keep you occupied for months.

There's still no printing facility, which is a pity, but I'll forgive Opera in view of its superb saving and cacheing functions.

There are some lovely touches in Opera. I liked being able to cut/copy/paste in the URL box on the Address bar. The images button on this bar toggles between showing all images, no images or just those which are already stored in the cache. When browsing on a slow GSM connection, with images turned off, there's now a 'Load all images' command and shortcut that you can call up for just the current page.

The only downside to Opera, and quite an understandable one given all the features above, is its memory demands. Allow 2.5MB

Browsing through Opera's web page Cache

Browsing with toolbar turned off and showing a pop-up list

for storage of the application itself on internal or CF disk, plus another 3MB for a copy of it running in main memory, *plus* 2MB more for working memory (building up page images, cache, etc.) In short, don't even think of running Opera on an 8MB Revo, and install it with caution on a 16MB Revo Plus—over half your total memory will be spoken for by this single application.

Make no mistake, writing a modern web browser is a truly huge undertaking. The complexities of multi-threaded page access and download handling, image decoding and animating, stylesheets, Javascript and form encryption (to name but a few) mean that something as ambitious as Opera shouldn't realistically be possible on a Psion palmtop, running at 37MHz with a small screen and limited memory. That the folks at Opera have made this a reality is nothing short of staggering. Highly recommended if you can spare the memory.

Steve Litchfield

Opera 5

From: www.opera.com

Availability: Now (various languages)

Price: $39, or $15 to upgrade from version 3.x

Quality	★★★★½
Value	★★★★☆

nArchive

Neuon, perhaps more than any other entity in the EPOC world, has pushed back the boundaries of what can be done with small, shareware utilities. By judicious use of C++ (in addition to their beloved OPL) and by programming more for fun than for profit, Neuon has produced some very slick and useful software.

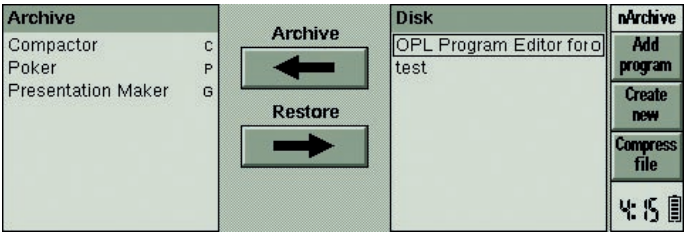
nArchive is such a utility, designed to make more of the most precious resource in every palmtop—memory. The idea behind 'archiving' an application is to compress all the files that it needs (usually those in the \System\Apps folder) into a single '.arc' archive, then deleting the originals. Typically, the archive file is around 50 percent of the combined byte size of the original file set.

For small applications, the hassle of having to restore them again through the nArchive interface rather negates the space savings made, but for larger programs the nArchive system makes a lot of sense. Importantly, the archiving and unarchiving process is fairly quick: for example, 180K of Presentation Maker application files took only around six seconds to archive or restore.

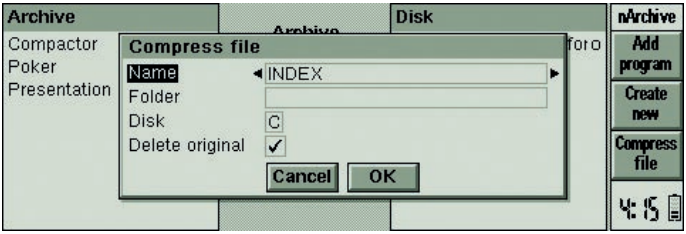
With such a turn of speed, having to wait a few seconds (especially for a game) isn't generally an issue, and the potential space savings are large. Keeping a dozen games archived for use when on holiday or away for the night can easily save a megabyte or so, and there's also the advantage that the archiving process removes their icons from the Extras bar, letting you see your day-to-day business applications more readily.

However, you should bear in mind that there's little point in archiving applications which are already very efficiently packaged, such as Street Planner, despite their bulk. The space savings that nArchive facilitates come mainly from the natural inefficiencies in EPOC's application and picture file formats, and different types of program will compress by different ratios.

nArchive's interface is delightfully simple. The two lists of applications (archived and on disk), with large buttons to move items between them, works very well indeed. Applications can be added into the right hand list by selecting them from a popup list, which is itself generated from EPOC's Control panel 'Add/remove'. Taking file information from this is generally a good idea, although most of us have at least one application which had to be installed by hand (i.e. no SIS file available), or for which there isn't a valid 'Add/remove' entry. In this case, nArchive allows program items ('groups' of files) to be created manually, specifying which files and folders to include.

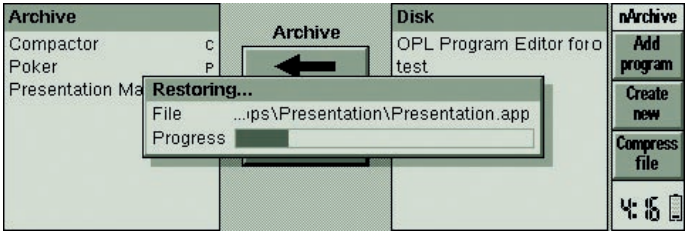


The main nArchive two-list interface



About to compress an individual document

Restoring an 'archived' application



Finally, and most impressively of all, it's even possible to archive individual documents, using a 'Compress file' command (or toolbar button) within nArchive. Once compressed (and the original deleted), the document appears with the nArchive icon on the System screen. Tapping on it from there then expands the document to its original form (typically in no more than a couple of seconds) and opens it in the appropriate application. A background 'expander' task hangs around cleverly in the background, waiting for you to make changes, if any, and close the document again, whereupon it is compressed again automatically.

It's difficult to fault nArchive. Its developers seem to have thought of everything, and by integrating it into your palmtop's day-to-day configuration you stand to gain anything up to several megabytes of usable memory.

Steve Litchfield

nArchive

From: Neuon (www.neuon.com)

Availability: Now

Price: £10 (shareware)

Quality	★★★★½
Value	★★★★½

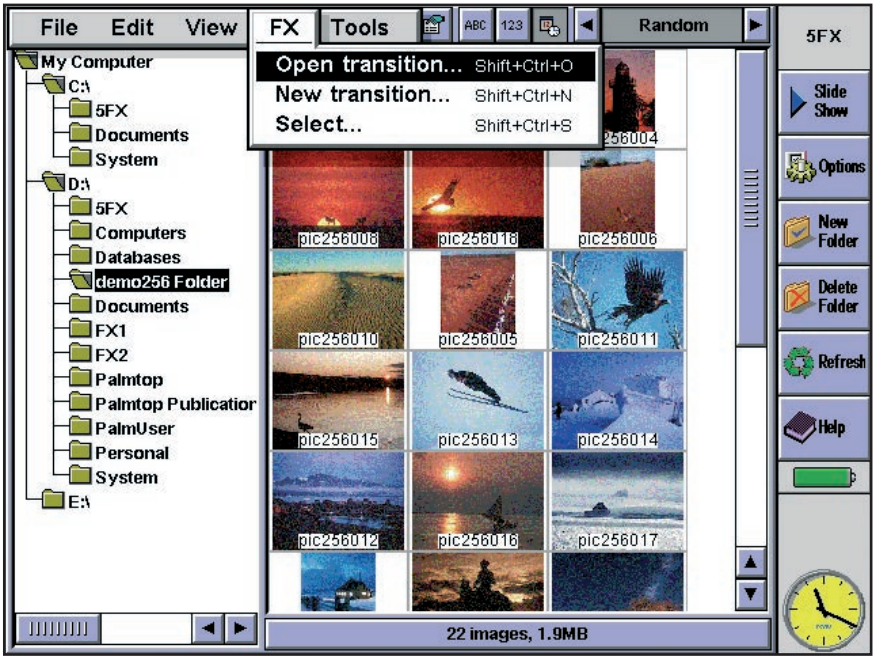
5FX

As discussed in 'The photorapher's assistant' feature on page 53, viewing photographic images on a Psion computer can be a less-than-perfect experience. On a monochrome palmtop you'll of course be looking at only 16 varying shades of grey and green, and even on the Series 7 and netBook you're limited to a rather photo-*un*realistic 256 colours.

Despite the limitations, many people do like to store a collection of photographs on their Psion. Be they holiday snapshots, family photos or a basic business presentation, there's something inherently satisfying about being able to view a sequence of images on a a portable computer. Although there are other Psion-based programs that can be used to view a series of photographs, 5FX is the only one to allow Microsoft PowerPoint-like transition effects to move from image to image.

In addition to EPOC-native MBM files, 5FX can also work directly with JPEG files, which are now used as the native file format for most digital cameras. This allows images to be transferred directly from camera to Psion via CF disk if your camera uses this kind of storage media.

Once a folder full of images has been transferred to your Psion, 5FX will scan the folder and create thumbnail images for each one. Before running a slideshow of these images, you can choose a delay time to



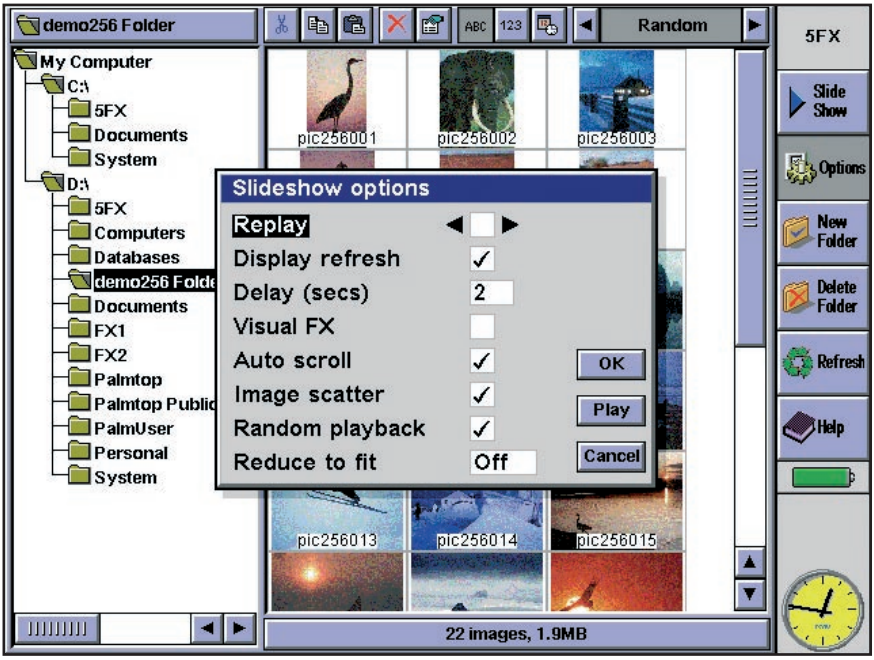
The thumbnail view on a Series 7—about to select a transition effect

use between slides, whether to blank each image before displaying the next (rather than overlaying them on top of each other), and the option to scatter the images at random on screen.

If the 'Visual FX' option is checked, it will give the option to use any transition effects in whatever 'FX' folder you select. The program is supplied with a small selection of these, including such effects as 'blinds', 'wipeout', 'dissolve', 'scroll right' and so on. Transition effects are in fact simple OPL procedures, so in principle it's possible to write your own, or at least plug-in those written by other users.

Once an 'FX' folder is chosen, you can elect either to use the same effect to transition between all slides, or to cycle at random through those available.

The sequence of images will be replayed either in random order, or the order that they appear in the thumbnail display, which can only be sorted by name, size or date. Sadly, there's no possibility to move the images around the screen to achieve the order you want—if you've already named the images with something descriptive then you'll need to go back and prefix each name with a number, such as "001", "002", etc. to force them to play back in the order you want. There's also no option to skip selected images, so you have to ensure that the current folder contains only the ones you need for the current slideshow.



Several slideshow options are available to enhance the presentation

Aside from this lack of flexibility in ordering the slideshow, 5FX otherwise works very nicely. There's no option to add titles or captions to the images as they're displayed, though of course you can do this by manipulating the images in Sketch beforehand, converting them to MBM format first if necessary (see this issue's 'The photographer's assistant' feature for more details).

5FX works on all current Psion models, including the Revo range. Images can't be rescaled to suit smaller screen sizes, but if an image is larger than the current screen, it's displayed with scrollbars so its position can be adjusted. The image will then be 'cropped' to show only that part of the image.

Finally, and only touched on briefly in the 5FX documentation, the program can be used to view a series of 'animated' MBM files, though this feature is probably of little use to non-programmers.

If you want to view a series of images on your Psion then 5FX is a useful tool, offering more flexibility than anything else currently available.

Steve Clack

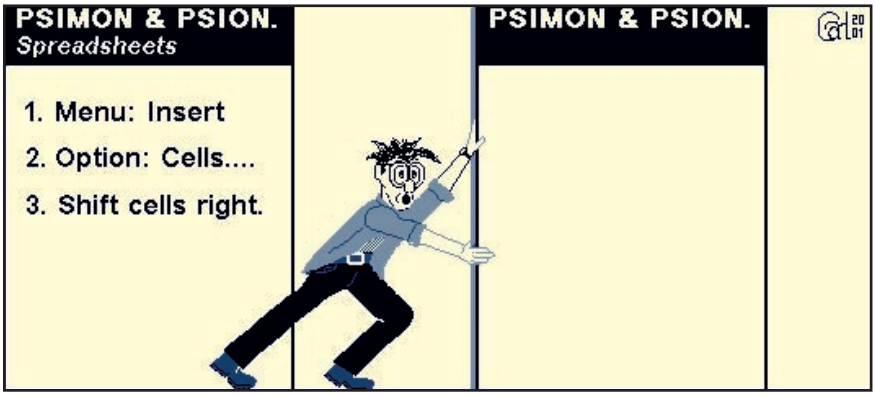
5FX

From: Stampark (www.stampark.co.uk)

Availability: Now

Price: £15 (shareware)

Quality	★★★★☆
Value	★★★★☆



Carl Reader, creator of Psimon and Psion as featured in Palmtop, is now available for freelance work. If you're looking for artwork such as splashscreens, game backdrops and icons for your Psion applications, email *carl.reader@lineone.net* for more details, or go to *website.lineone.net/~carl.reader*

Living with the 9210

As part of our review section, Stefan Smith gives a long-term appraisal of the Nokia 9210 Communicator

Working in the PDA business, my collection of handheld devices is extensive, with various Palm OS and Windows CE based palmtops to complement a Psion Series 5, 5mx, Revo and netBook. For the past two months however, all of these have taken second place to the Nokia 9210.

Steve Litchfield's first impressions of the 9210 as covered in the last issue of Palmtop provide a good overview of the hardware and software, so I won't go over the basic specifications and features again here.

Since its launch, the various reviews and online discussion forums have made me question how well the 9210 is understood. Many seem intent on describing it as an 'upgrade' for existing Psion owners. I have to disagree, remembering that ER6 is the evolution of the core Psion operating system to support both voice and data, and by no means just an upgrade to ER5.

Neither a 5mx replacement nor an upgrade, the 9210 is aimed at an entirely different market, evolving Nokia's own product line, not Psion's.

The hardware

My first encounter with Nokia's Communicator series was several years ago, when I was given an early 9000 unit. The strong resemblance to a housebrick in both size and weight ensured that it went into early retirement. The 9210 is still over-sized as phones go, but this is at least partially compensated by being unusually light (only fractionally heavier than a Revo). As the third generation Communicator series from Nokia, the 9210 has undergone several hardware changes from the earlier models, but there is still room for improvement.

Firstly, the keyboard is disappointing. The lack of positive feedback from the keys imposes a major restriction on how fast you can type. As a reasonably fast typist I have been forced to slow down in order

to reduce the number of typing errors. There's no doubt that anyone used to a Psion keyboard will find transitioning to the 9210 a retrograde step.

On the other hand, the colour screen (displaying 4096 colours) is simply wonderful. Both brightness and contrast can be adjusted and the 9210 can be viewed in almost any lighting conditions with excellent clarity. The display does darken somewhat in bright sunlight, but remains perfectly readable.

The lack of a touch screen feels awkward at first, and it took me at least a week before I finally lost the urge to 'tap'. Two months on and only the 9210's Web application makes me really yearn for a touch screen.

Battery life on the Nokia is superb. I frequently have hour-long phone conversations, perhaps two or three per day, interspersed with a number of shorter calls. Couple this with a few hours using the PDA functions and the Nokia still doesn't need a recharge until the end of each day. No other device on the market comes close to this when you consider the colour screen, phone and PDA all in one unit. Even with serious use you can expect to see a good 24 hours of battery life. More frugal use will let you get away with two or even three days between charges.

Integration

As an integrated mobile telephone and PDA, the 9210 offers genuine convenience. The inability to decouple mobile phone from PDA may be seen as a disadvantage by some, but it's clear that Nokia didn't design the 9210 for the fashion conscious phone user, who couldn't possibly be seen in a wine bar with such an oversized phone.

In use, the level of integration is amazing. No matter which application is running, all incoming voice or data calls text messages and faxes are routed to the screen with top priority. You can engage in conversations with the device open using the built-in

speaker, which has excellent clarity. The microphone is very sensitive and you can use the 9210 quite happily as a speakerphone inside a conference room. I almost always hold voice calls in this way.

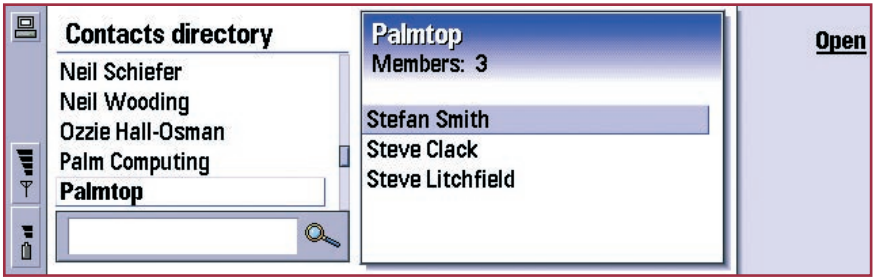
With the Communicator casing closed, Calendar alarms and other messages are routed through to the phone display on the outside of the case. Make no mistake—this is no palmtop computer glued together with a mobile phone. The Communicator is a new breed, where the distinction between phone and PDA has finally disappeared.

Personal Information Management

While Calendar (Agenda) is virtually identical to its ER5 Psion predecessor, the Contacts application has been radically transformed. Multiple contact databases are now supported and there is complete integration with Messaging (Email, SMS and fax), Web and the Telephone applications. Moving the cursor over individual fields in a contact record invokes different responses from the hotkeys to the right of the screen. Put the cursor over an email address and the button will read 'Write mail'. Move over a mobile phone number and 'Call' or 'Write short message' become the available options.

The most useful enhancement is the 'Group' feature. Assign two or more contact records to a group, then address your outgoing email to that group and the

Context-sensitive messaging options in Contacts



You can now have multiple Contact lists and divide your contacts into groups

9210 will ensure the message is sent to each person individually. I regularly send identical messages to the same team of people and this is a major productivity feature. If one member of the group has more than one email address then the software will prompt you to select the one you want prior to sending.

Office applications

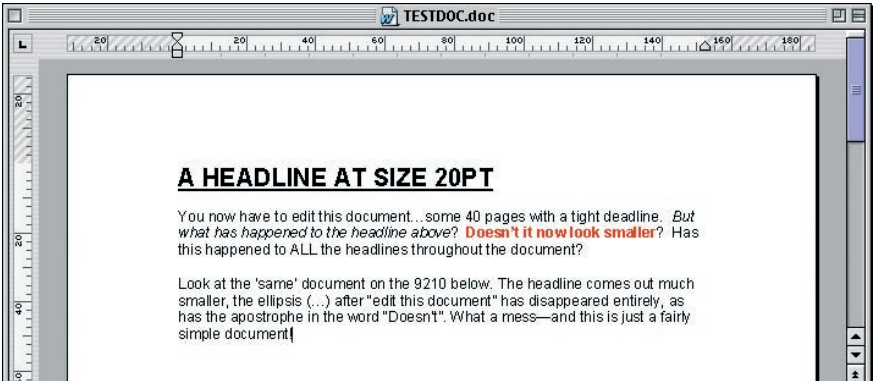
EPOC Word and Sheet on the 9210 are, in the main, identical to those found on a Psion Series 5mx. Both have been enhanced to support the colour screen, and Sheet now supports multi-sheet workbooks, just like Microsoft Excel on a desktop computer. Both support native Microsoft Word and Excel file formats.

If you're excited at the prospect of being able to edit native Microsoft documents on the go then curb your enthusiasm, as Symbian's efforts at providing on-board conversion are little short of appalling.

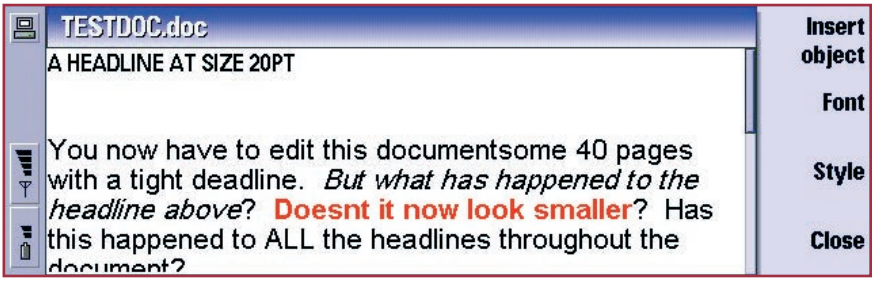
To expect 100 percent compatibility with applications as complex as those found in Microsoft Office is unrealistic. However, there is a serious loss of formatting when working with even quite basic Word or Excel files.

In the real world there are two common situations: creating new document files and editing existing ones, the latter perhaps received as email attachments.

The ability to edit Word files directly on the 9210 is something I relished, as it offered the potential for me to leave my laptop



A Microsoft Word document with fairly basic formatting...



...totally ravaged once imported and viewed on the 9210

computer behind. Unfortunately, the reality is that this isn't possible, given the poor state of the file conversion routines.

The screenshots above show a basic Word document as viewed and created on a PC and then viewed on the Nokia. The differences include not only loss of formatting in the heading, but the disappearance of certain characters. Given a more sophisticated multi-page document, any editing by ER6 Word will leave the document looking substantially different from the original.

Sheet is considerably worse. The first two screenshots on the following page demonstrate a similar example.

ER6 Word performs better when creating new documents and saving them as native Microsoft Word files. However, the same cannot be said for Sheet. The third screenshot on the following page shows a basic spreadsheet created on the Nokia. The document was saved in Excel format and immediately reloaded as shown in the bottom screenshot. The results hardly inspire confidence.

If you use PC Suite (the PsiWin replacement bundled with the 9210) to convert between document formats, the results are considerably better. However, the whole point of the 9210's built-in convertors is to avoid having to resort to PC

	A	B	C
1		Actual	Target
2	May	10	9
3	June	11	12

An Excel spreadsheet created and viewed on a desktop computer...

TESTDOC.xls — Sheet1

A1

	A	B	C	D	E
1		Actual	Target		
2	May	10	9		
3	June	11	12		
4					

Edit | Insert function | Clear | Close

...and then viewed on the 9210—number alignment and all colour information is lost!

Sheet — Sheet 1

A1

	A	B	C	D	E
1		Sales			
2	May	5			
3	June	6			
4					

Edit | Insert function | Clear | Close

Another simple sheet, this time created on the 9210 and saved in Excel format...

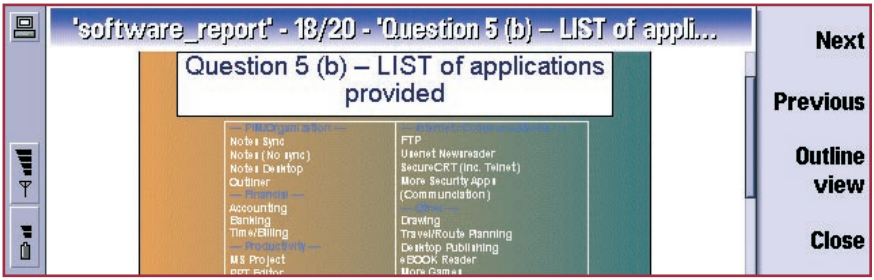
Sheet.xls — Sheet 1

A1

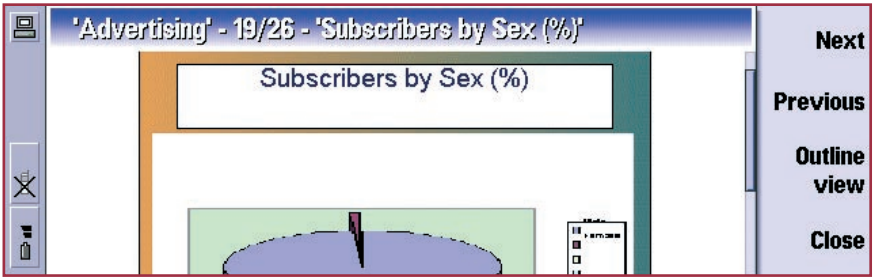
	A	B	C	D	E
1		Sales			
2	May	5			
3	June	6			
4					

Edit | Insert function | Clear | Close

...then reopened again on the 9210, with a similar loss of formatting



View Microsoft PowerPoint files directly on the 9210...



...in full colour, of course

connectivity. Conversions aside, both applications perform just as well as they do on the Psion 5mx.

Presentation Viewer is a new application from Symbian, allowing Microsoft PowerPoint files to be viewed directly on the Nokia. Generally speaking, the application works well, so long as the source file doesn't incorporate advanced features such as video and audio. There are notable problems in rendering small fonts as well as some background colours.

Other built-in software

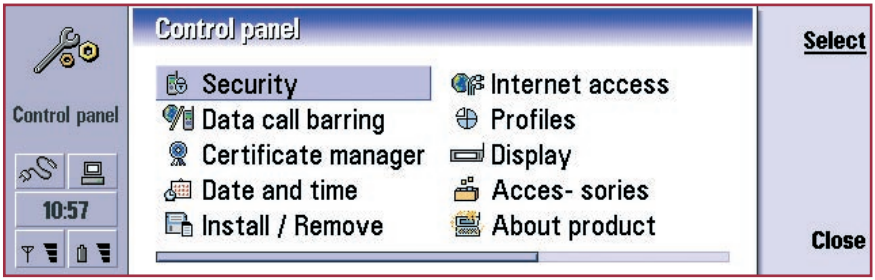
Tel - this provides access to many of the telephony features when the Communicator is in 'open' mode. It allows you to make voice calls, access call lists and so forth.

Control panel - similar in nature to the Control panel on current Psion models, save for additional phone-related functions such as call barring, etc.

Profiles - just as with many other phones from Nokia, 'profiles' allow you to customize the various sounds produced by the 9210. You can configure sounds for the alarm clock, calendar alarms, SMS messages, ring tones, and so on. Each profile relates to a particular environment or situation you might find yourself in.

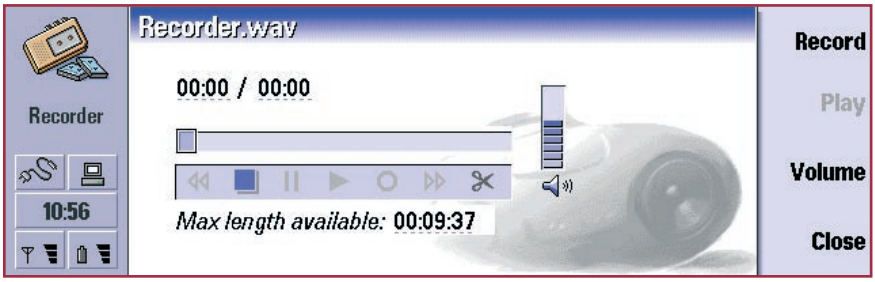
Clock - replaces the Psion Time application. Virtually identical, except that alarm sounds are determined by the profile in use.

Recorder - the same as on Psion devices, but there are no external buttons to control recording and playback. This makes prac-



The Nokia 9210 Control panel, much like that on existing Psion models

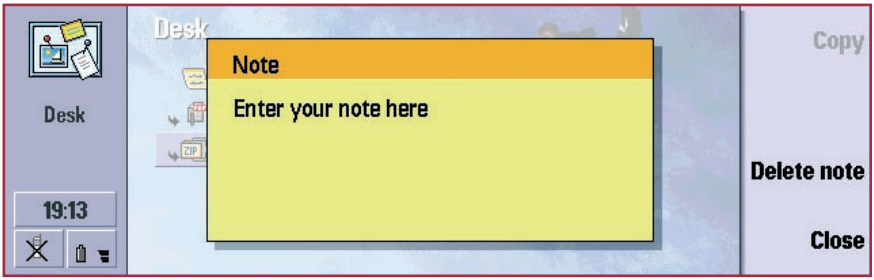
Clock—Nokia's version of Psion Time



Recorder is virtually identical to the earlier Psion version

tical use of the application very limited. By default, the system uses the popular '.WAV' file format.

Video player - the video capabilities were touched upon in issue 34, but suffice to say that neither Nokia's Video Player nor the Real Player client utilise all available screen space. And as good as the 9210's screen is, the availability of only 4096 colours doesn't make for TV quality viewing. The audio speaker, although excellent for voice conversations, sadly lacks the quality necessary to reproduce digital music.



Notes—a Post-It style Jotter application

There is therefore little practical use for either Record or Video player on the 9210.

Calculator - is virtually the same as that on ER5 Psion machines.

Notes - a Post-It note look-alike Jotter application. Object embedding is not supported.

Spell Checker - installed from the supplied CD. It runs much faster than on a Psion 5mx, and once installed works in both Word and the Messaging application.

File Viewer - enables you to view all kinds of PC-formatted documents. These include Microsoft Office and image files. It's only a viewing application however, and file formats cannot be converted into anything capable of being edited by other applications on the 9210.

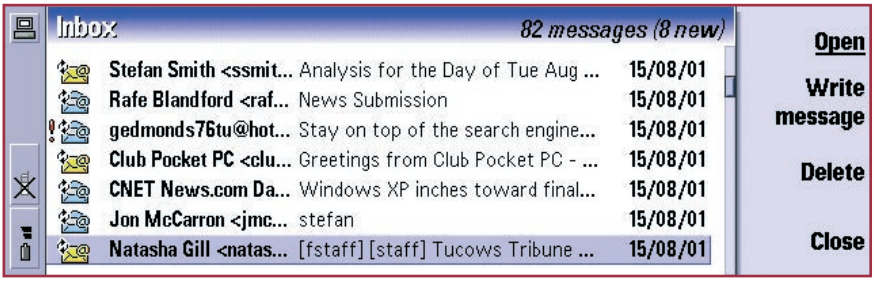
Messaging

Writing and replying to email now consumes the major part of my working day, so the Messaging application is especially important. Though not perfect, it is far superior to any other email client I have tested on a device of this size.

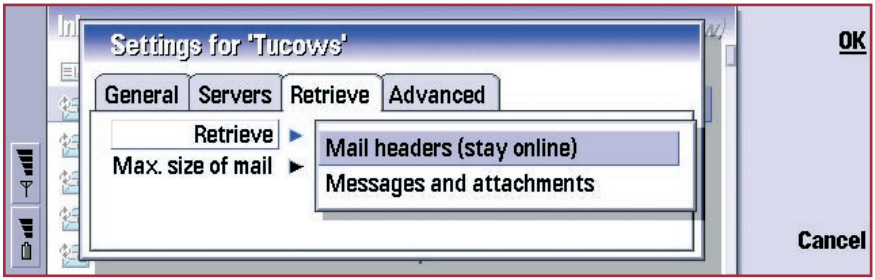
Compared with Email on ER5 Psion devices, there are three important enhancements:

- A vCard or signature can be appended to all outgoing messages.
- Support for HTML-based email messages (both sending and receiving).
- A search function.

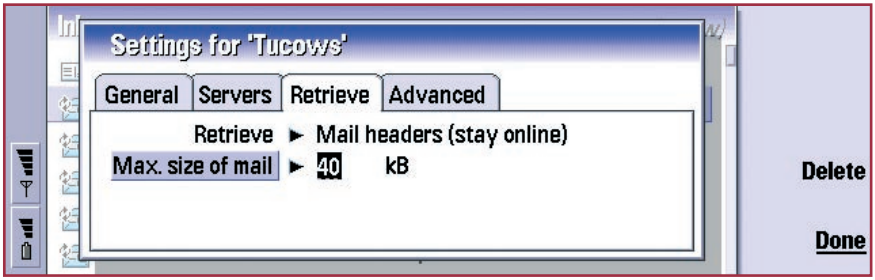
There are also other, more subtle differences. Each email account now has its own Inbox, so there is no longer a need to move



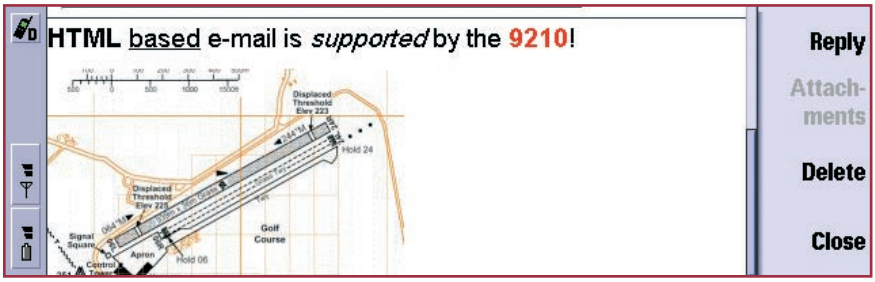
A busy Inbox—each separate account now has its own



Choosing whether to retrieve headers or entire messages



You can even choose a size above which to retrieve headers instead of entire messages

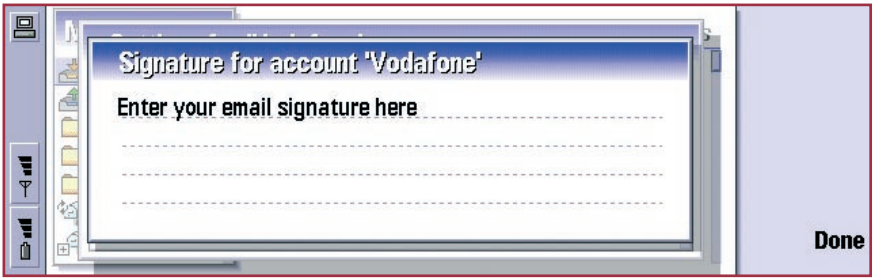


Full support for HTML-based email, both incoming and outgoing

or copy messages to the central Inbox before you can read them. Additionally, you now have the choice to download either headers or entire messages, based on size restrictions that you set in advance.

The search function is a major plus, and you can elect to search either the entire message store or just individual folders.

It's not unusual for me to receive 200 or more email messages in a single day. I have recently spent long periods away from a PC, relying solely on the 9210 for all my email



Add either an automated signature or vCard file to your outgoing messages

A powerful search facility, essential if you have a large message base

needs. Power users will be hard pressed to find any other handheld device that matches this overall level of performance.

Internet

Both the Web and Wap applications on the 9210 reveal their ER5 heritage. Web is both slow and memory intensive. It supports HTML 3.2 and version 3 of SSL, plus the other features found in Web on the Psion 5mx. Javascript is nowhere to be seen, and there's no support for the higher grades of encryption needed to access some web sites. The lacklustre performance and small screen area are enough to persuade me to avoid using Web on the Nokia at all costs. A Series 5mx has the edge here, despite the lack of a colour screen. Pages are also rendered much faster on the 5mx, and the larger screen makes the whole experience more pleasurable. Opera has indicated that it will be porting its enhanced browser to the 9210, which should improve the situation considerably, although working memory may be an issue.

Imaging

The 9210's Imaging application replaces Psion's Sketch and is used to view JPG, MBM and BMP files. The application creates thumbnail images which can be saved into 'albums', a similar concept to that found in photo viewing software on PCs. There is no support for any form of editing on the 9210 itself, however. This application was designed to work with the Concord eyeQ Ir digital camera that's bundled with the 9210. Photographs can be beamed from camera to

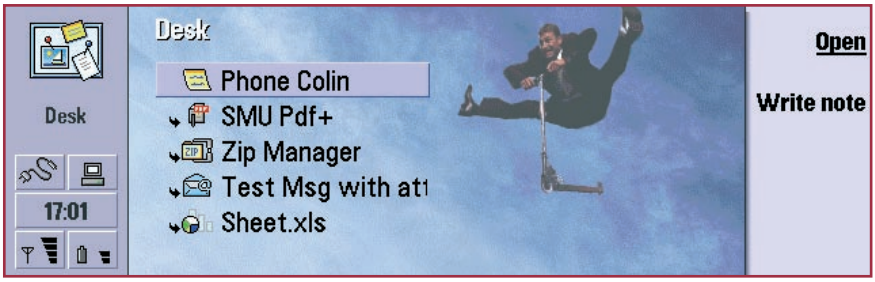
Direct support for the JPG file format, with the 9210's Imaging application

9210 via the infrared port, viewed and then sent on as email attachments or included as embedded objects in Word documents.

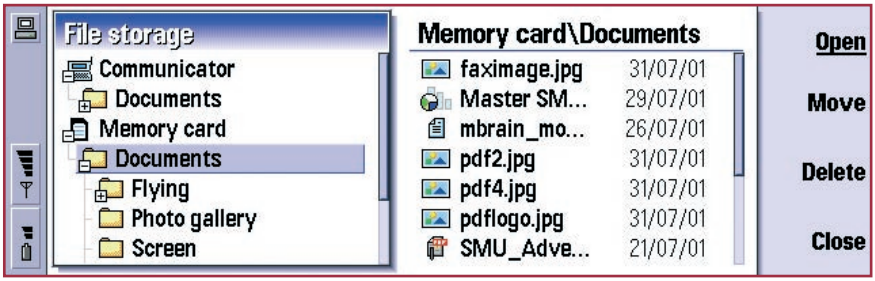
Most of the images I need to include in documents are JPG, so the direct support of this common format is a major plus over the Psion 5mx.

Desk and File Manager

Interacting with files and documents on the 9210 is very different from current Psion models, and in many ways lacks the freedom offered in ER5. Desk on the Nokia is analogous to the Windows 95 desktop, and File Manager on the Nokia more like



Desk—much like a Windows PC desktop



File manager—similar to Windows Explorer

Windows Explorer. There is no equivalent to the EPOC System button on the 9210, so navigating and opening files works rather differently to what you'll be used to as a Psion user.

The File menu in most applications features the option to 'Add to Desk'. A shortcut to any program or document can thus be added to the desktop, and these work just like Windows shortcuts. It's even possible to add shortcuts to individual contact records, email messages, and so on.

The File manager application is the only direct way of navigating to and interacting with all the files stored on the 9210, which I find frustrating. The smaller screen space and fiddly operation cry out for a more sophisticated third party replacement. If the application isn't already open then you have to press the Office button, then move the cursor over to File Manager and press 'Enter' in order to launch it—a convoluted process. Desk is a more attractive proposition for accessing frequently used documents and applications, though of course each item must be added individually.

Strengths and weaknesses

So what are the overall strengths and weaknesses of the 9210? Is it really a suitable replacement for both PDA and mobile phone? And how does it measure against other smartphone devices emerging in the marketplace today?

The 9210 has five major strengths:

- ☑ **Convergence and integration**: this is *not* a PDA bolted onto a mobile phone. The 9210 is true smartphone all the way—a completely new breed of device.
- ☑ **Communications-centric operation**: everything about this device is communications focussed. A Send menu can be found in the majority of the built-in programs and almost anything can be sent via SMS, fax or email at the touch of a button. The Messaging application is leagues ahead of anything seen to date on a pocket-sized device and the hands-free speaker and microphone would be the envy of many high-end office phones.
- ☑ **Keyboard**: although well below the standard of anything we would expect from Psion, it puts the 9210 into an altogether different category to competing devices such as the Trium Mondo or Sagem WA3050. This is the only device of its type (i.e. integrated voice and data) currently available with input by keyboard rather than handwriting recognition. There is nothing yet that can match a keyboard (even a mediocre one) for fast data entry.
- ☑ **PC compatibility**: between Word, Sheet, Presentation Viewer and File Viewer it's possible to view almost any PC-originated file format on the 9210. Editing native PC documents is still something that neither Symbian nor Nokia has resolved, though Palm and Microsoft share similar problems.
- ☑ **Battery life**: Nokia has shown that it's possible to converge phone, PDA and colour screen with a perfectly usable battery life. A solid 24 hours use is available as an absolute minimum.

On the downside, the 9210's current weaknesses include:

- ☒ **Memory**: the 9210 is equipped with only 8MB of internal memory, which by today's standards is paltry. It shows

too, with 'Out of memory' messages appearing on a frequent basis. 16MB should have been the absolute minimum for a device such as this. The processor is also a little slow, though this is less of a problem.

- **Document editing**: although EPOC Word and Sheet are still two of the most powerful applications of their type for mobile devices, there is a real need to edit native PC documents successfully, without any loss of formatting. The fact that Symbian and Nokia included the on-board convertors is testament to an identified need among mobile professionals, yet their efforts appear to have been inadequate. Creating new documents from scratch on the 9210 is less problematic, but the significant loss of formatting with even the most basic of documents raises serious doubts on whether this will be acceptable to users. If a colleague emails a complex and nicely formatted spreadsheet for you to work on while out of the office, how impressed will they be to see you returning a file which bears little resemblance to the document they originally sent you? For complex documents we have still not reached the stage where laptops can really be left at home for prolonged periods away from the office.
- **PC suite**: Symbian seem to have forgotten that people need to hook their devices to a PC. PC Suite still shows the flaws of its predecessor (PsiWin). It has been commented to me in the past that Symbian believe wireless remote synchronization will be the way forward. Even if this is so, we are still some time away from seeing this as a reality. People *need* rock-solid PC connectivity, and Symbian continue to demonstrate a lack of competence in this area. The software is just too unreliable. If you're using an Apple Macintosh rather than a PC then the 9210 is a non-starter, as there is no Mac-compatible PC Suite equivalent.
- **GPRS vs. HSCSD**: Nokia has elected to support HSCSD instead of GPRS. The reality is that the majority of GSM network operators are implementing GPRS as an interim step to 3G wireless technologies. In the UK, only one operator (Orange) supports HSCSD. GPRS is still a very immature technology and in the UK can only be used with WAP services (email over GPRS is reserved for those on business accounts). However, GPRS will evolve quickly and it offers speed advantages (just like HSCSD) plus other benefits. An always-on connection opens the door to automated email checking, instant messaging and so on.

Who will buy the 9210?

Before answering this question I should make some observations to existing Psion users who may be pondering whether or not to invest in a 9210.

MMC and SIM card slots

- The available software base for the 9210 is small at present. Applications designed to work on your current Psion device will of course *not* work on the 9210.
- Existing EPOC file types, such as Word, Sheet and Jotter will not be compatible, so will need to be converted into a PC format first, using PsiWin. ER6 uses Unicode encoding, which ER5 devices do not. Also, remember that there is no Data application on the 9210, so there's currently nowhere to store these files.
- Some users may be tempted to invest in a 9210 to co-exist with their Series 7 or netBook. Noting that the file types are incompatible, you should also be aware that a 9210 cannot communicate via infrared with any Psion device (other than to exchange vCal or vCard records).
- Agenda and Contacts files from your Psion device can only be transported to the 9210 via synchronization with a PC package such as Outlook, Organizer, and so on.

Bearing these points in mind, a device such as the Psion Series 5mx coupled with a mobile phone and third party software currently offers more functionality than the 9210 in many areas. And although many people will cherish the thought of a colour screen, remember that colour doesn't make you any more productive.

So what is there to be gained by switching to the 9210 Communicator? I suspect that Nokia has its eyes firmly fixed on the enterprise market, as large corporations quickly savour the financial gains in equipping ever-mobile workforces with more efficient tools to do their job. In the consumer market, Nokia will no doubt hope to score sales too, though it's harder to identify a 'typical' user.

From a personal perspective, if I travel for any period of time I always take my laptop computer with me, for no other reason than to edit Microsoft Office-based documents. No device exists today that provides the capabilities I need in order to avoid lugging a laptop, so for me the 9210 fails in this area. For email communication however, I know of no handheld device that matches the 9210's power and flexibility.

All in all, it's no coincidence that Nokia has named this device the 9210 *Communicator*—for this is what it does best. Those who view the 9210 as just a PDA coupled with a mobile phone are missing the point. Given the 9210's undoubted strengths in this area, it's a pity that GPRS isn't supported, as for many the 9210 will remain a second-generation mobile device, communicating at speeds of only 9.6kbps.

For my own communications-centric use, I will never return to my Psion 5mx, and nothing else comes close to the 9210. If communications at this level isn't central to your business or personal life then a standalone PDA is probably better suited to your needs.

How successful will the 9210 be? This is the third generation of the Nokia Communicator series, but comes at a time when communications devices are converging with handhelds. I have no doubt that the 9210 will do well in the enterprise market. However, the consumer market is so competitive that the success of the 9210 remains to be seen.

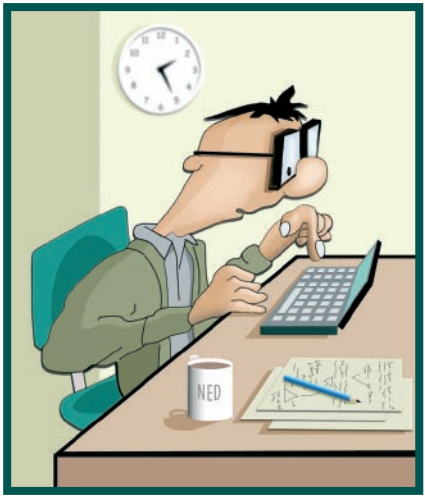
One thing that will certainly influence potential buyers is the availability of third party software, something that has driven the Palm OS platform for years and is helping Microsoft to narrow the gap with its Pocket PC operating system. Microsoft has

The 9210 keyboard, shown at actual size

its eyes firmly set on Symbian and has the edge in terms of its developer base. There is simply more money being spent on software development in the USA and the quality of software being produced is astounding. In the EPOC arena, the greater percentage of software development is still undertaken by enthusiast programmers, many of whom are still working with OPL. This is not to criticise their efforts. Rather, I am highly sceptical as to whether ER6 will attract the same level of software development as its competitors. Microsoft has already proven that it's *software* that sells computers, and I believe this will apply equally to the mobile handset market over the coming years. A solid software base would make the 9210 a formidable device.

Stefan Smith is Editor of SmartPhone User magazine, a set of FREE downloadable PDF-based publications devoted to the Nokia 9210/9290 and other emerging smartphones. *See www.smartphoneuser.com for more details.*

Programming your palmtop



Alan Richey rounds up the main resources available to create EPOC applications

As the proud owner of a new EPOC palmtop, the built-in applications may well do everything you want. A few weeks down the line though, and you may decide that it would be useful to have another application that would help you in a specific way. There is a choice of three computer languages to use, and a multitude of optional resources. Here's a brief overview of what's currently available.

Java

This is a popular programming language on other computer platforms, as any program written in Java is theoretically 'platform independent' and can be run almost anywhere. Although Java is supported by Symbian, the implementation isn't exactly cutting edge and there have been few Java programs released for EPOC to date. If you are not already a competent Java programmer then it doesn't offer sufficient benefits over the other languages mentioned here to warrant learning it from scratch.

C++

This is the 'official' language for professional programming on all EPOC and Symbian OS devices. The Operating System (OS) and built-in Psion applications are all written in C++, meaning that any third party C++ application should integrate without problems. As a C++ programmer you'll have access to many OS routines. Also, as a 'compiled' language, it will run very quickly on the palmtop computer and should be quite compact.

Symbian's main developer support site

OPL

Organiser Programming Language (OPL) is specific to Psion/Symbian-based machines. In syntax, it is very similar to BASIC, so anyone with a rudimentary knowledge of programming should be able to pick it up very quickly. It has the advantage over C++ that programs can be developed directly on the handheld device if required, rather than needing a PC, but being an 'interpreted' language it can run fairly slowly at times and take up a little extra memory. Unlike C++, it doesn't (by default) have full access to all the routines in the operating system, although there are ways around this, as we shall see later.

Making a choice

Before deciding which language to use, you first need to look at why you want to produce a program.

- If it's just something simple to assist you personally in a specific area then OPL is a good choice. You can develop the program quickly and test it on the palmtop itself, then make any further changes as you use the program from day to day.
- If speed is an issue then you may have to consider using C++. You may also want to use C++ if you are going to be dealing with large, complex databases, as OPL does have limitations in this area.
- If you want to write a program that can be marketed commercially and if you feel confident about tackling the language then it is probably best to go for C++, as this is the language of choice for most professional programmers. Having said that, I should add that I have been writing and selling the range of RMR Software programs for six years and they are *all* written in OPL.

This demonstrates how powerful OPL can be if used properly.

Note that if your program will be used by other people, you should consider the OS versions being used and test for compatibility (see the boxout below). The changes through ER3, ER4 and ER5 were relatively small, so it's quite practical to write a program that will run on all these versions and on all the different EPOC palmtops, provided that various checks are made to ensure that only platform-supported functions are used.

Where to go first

Having decided upon which programming language to use and which OS version you wish to develop software for, your first stop should be the Symbian Developer Network (which used to be known as EPOC World), the developer's forum run by Symbian. Once you have registered (it's free), you can get copies of the Software Development Kits (SDKs) for all three languages for ERn (see 'EPOC OS versions' below), either by downloading them from their web site or by ordering them on CD (for a nominal charge). As far as ER6 is concerned, Symbian Developer Network has Java and C++ SDKs available for Quartz (see issue 29's 'The Quartz crystal ball'), but nothing official so far for Crystal, the version used in the Nokia 9210 (see page 31). However, once you have registered as a developer, again for free, Forum Nokia will send you a free copy of the C++ and Java SDKs for their implementation of ER6.

The Symbian Developer Network also has an area where third-party development

EPOC OS versions

EPOC Release 1 - used in the original Psion Series 5 and the GeoFox One.

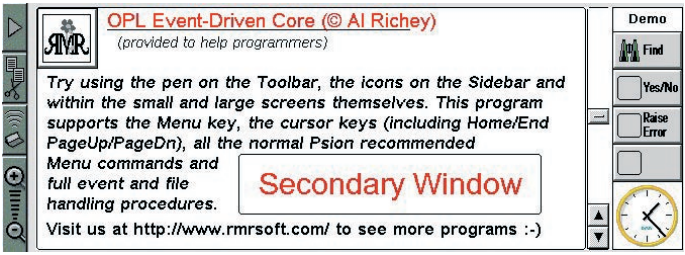
EPOC Release 3 (ER3) - as above, but equipped with the Message Suite upgrade and Internet libraries.

EPOC Release 4 (ER4) - only used in the Oregon Osaris. For practical purposes it can be treated as ER3 with some minor defect fixes and no major additions.

EPOC Release 5 (ER5) - the most widespread version, used in the current Psion Revo, Revo Plus, Series 5mx, Series 7 and netBook, the Ericsson MC218 and the Diamond Mako.

EPOC Release 6 (ER6) - the latest version, so far used only in the Nokia 9210 communicator. Due to the use of Unicode characters throughout, applications are not directly compatible with ER5.

Note that Symbian are trying to move away from the names 'EPOC' and 'ER6', using 'Symbian Operating System' and 'V6.0' instead.



The RMREvent example program, shown running under the EPOC Emulator

tools and code segments can be downloaded, often saving you time and trouble.

SDK contents

Once installed onto a Windows PC, these SDKs give you practically everything you need to develop software: an 'emulator' so you can see what the program will look like on the host machine, example programs and tools to build help files, multi-language versions and installable SIS files for easier software distribution.

For anyone programming in OPL, the SDK also provides add-ons, written in C++, that give you access to many routines in the OS.

A glossary of programming terms

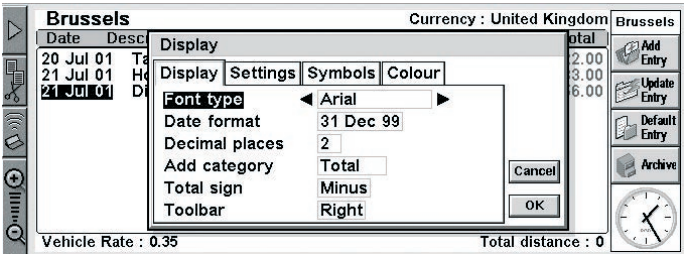
Code - not, as you might think, encryption, but simply a term for the commands and statements in a computer program.

Compiled - refers to a computer language which can be converted and optimised down to machine code, which is used directly by the computer's processor.

Event-driven - refers to a style of programming in which a program's operation is driven mainly by external influences (events), such as a tap on the keyboard or screen, a timing signal from the operating system or a signal from a serial port. The alternative is to let the program call the shots, asking the user to do things only when requested, etc. Most well-written EPOC programs use an 'event loop', in which the program spends most of its time waiting for events. As each is detected, the appropriate procedures and routines are called to deal with the event.

Interpreted - refers to a computer language which isn't compiled down to binary (machine code), for direct use by the computer's processor. On a Psion, you 'translate' OPL down to OPO (OPL Output) 'tokens', abbreviated forms of the original OPL commands, which are themselves interpreted by EPOC's OPL 'runtime' engine, at which point your program actually runs.

Resource - although this is a general computing term for any useful file or database, it's often used in the EPOC world to refer to a file holding language-specific data, e.g. with all the text strings and error messages in a specific foreign language. Clever programming of the application and installer means that the chosen application can then be run in any language with appropriate resource files.



A nMPD multi-page dialog within an OPL program

These are called OPL Extensions, or OPX for short.

Another important component of all SDKs is Symbian's official Style Guide. This provides guidance on design and standards for the user interface of all EPOC programs.

A good read

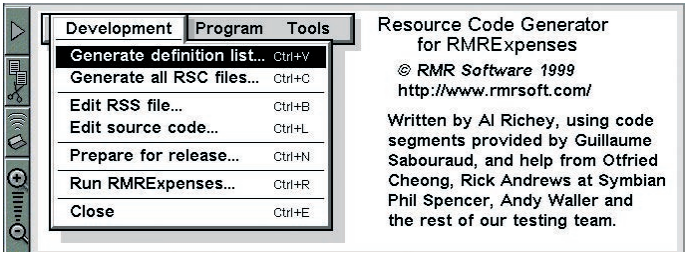
If you have programmed before on other computer platforms, the documentation in the SDKs should be sufficient. I'd still recommend that you buy Symbian's own 'Professional Symbian Programming' though, a huge book which introduces virtually everything you could possibly want to know about programming for EPOC. See our review in issue 28.

If you are brand new to programming and taking your first steps in OPL, check out 3-Lib's online programming tutorial, which uses RMR Software's RMREvent example program as its vehicle, explaining the code line-by-line and clause-by-clause. If you already have some experience of OPL programming you may be able to use just RMREvent on its own, as it's a fully-working framework, with event-driven engine, menus, toolbar and everything else you need to produce a professional looking program. All you have to do is add your own functional code in the appropriate areas. Many programs now available for EPOC machines are based on RMREvent.

The 3-Lib site has a useful range of other articles, on such subjects as making SIS files, writing language-specific programs and a very useful 'Minimum Specification' set of guidelines.

Extensions and tools

Many other tools have been produced by developers to make the programmer's job easier. In some cases these duplicate the



Working on language-specific resources in RMRRCG

functionality of tools provided in the SDK, but run instead on the EPOC palmtop itself, so that you don't need access to a PC.

One of the most prolific sources for such tools is Neuon. Worthy of specific mention are nMPD, which allows OPL to use multi-page dialogs in the same way as the built-in applications, and nScrollBar, which provides proper scrollbar-equipped windows, something not directly available in OPL.

Symbian has made the production of different language versions of software relatively straightforward, but again a number of tools are available to make the job even easier. RMR Software's own RMRRCG (Resource Code Generator) is a good starting point, but Neuon has also produced a language resource manager and Guillaume Sabouraud has produced a family of products called RSCTools. Note that many of these tools are freeware, as the developers have normally written them for their own use and then kindly uploaded them with others in mind.

Other resources

Although it doesn't now appear to be linked from its main site, Mark Esposito of Pelican Software produced a very good guide to the Database Management System (DBMS) used in EPOC, which is otherwise notoriously poorly documented. No program is of much appeal without icons and pictures, and Phil Spencer has produced a very useful guide to creating EPOC MBM picture files. And last but not least, UseNet has a very strong EPOC presence, and any questions posted to the *comp.sys.psion.programmer* newsgroup will normally receive a quick and helpful answer.

Resources

Symbian Developer Network	*www.symbiandevnet.com*
Forum Nokia	*www.forum.nokia.com*
3-Lib	*3lib.ukonline.co.uk*
Neuon	*www.neuon.com*
RSCTools	*www.chez.com/chemtools*
Pelican Software	*www.pelicansoft.com/dbms.html*
Phil Spencer's Graphics Page	*www.spencer.nildram.co.uk/5icons.htm*
RMR Software	*www.rmrsoft.com*

The photographer's assistant

Steve Clack looks at how a Psion computer can help you to get more from your photography

There can be few hobbies or pastimes that don't benefit in some way from the use of a Psion handheld, be it for recording the details of a collection in Data or keeping spreadsheets of important information. If you happen to have an interest in photography, your Psion can be an indispensable companion, handling everything from exposure calculations to presenting a slideshow of images. Here's a look at some of the ways a Psion palmtop can help to manage your photographic work.

Making the connection

If you use a digital camera, you can of course transfer photographs to your Psion to view them either individually or in a simple slideshow. This is inevitably a disappointing experience on a monochrome Revo or Series 5mx, but can still be useful on occasion. Despite originally being touted as having 12-bit colour, the Series 7 and netBook both have 8-bit (256 colour) displays. The excessive amount of dithering caused by such a low bit-depth makes most photographic images look less than perfect, but it's generally good enough for basic presentations, or for checking basic composition, focus and exposure.

Most digital cameras nowadays store images directly in JPEG format, which can be read by several Psion-based image viewing and manipulation packages, or even the Web or Opera browsers (use File | Open file...). If your camera stores JPEG images onto a Type I CompactFlash card then you can simply take the CF out of the camera and slot it straight into your Psion (unless you're using a Revo).

If your camera doesn't use JPEG for its image format and/or doesn't take CF cards, you may need to use a desktop computer to convert the images first, then load them back into your Psion via PsiWin or MacConnect in a format that your Psion image viewing software can read. Some cameras offer infrared beaming of images

A 1600x1200 pixel digital photograph shown at full resolution, taken with a Nikon CoolPix 950

Part of the same photograph, viewed in greyscale on a Series 5mx

The same photograph once again, shown in 8-bit (256 colour) mode on a Series 7. Note the reduced image quality due to downsampling to only 256 colours

to avoid the need for a cable connection. Although your Psion will generally be unable to receive these images without specific software designed for the model of camera you're using, you may have some success in copying files using **plBeam** (reviewed in issue 34), the generic infrared file transfer utility.

There are a couple of utility programs available for specific models of digital camera: **PsiMX** allows basic control of a Fuji MX-700 via a cable connection, and **PsiCam** does a similar job with an Olympus Camedia 420L.

Image manipulation

Given the limitation of 16 greyscales or 256 colours, any attempts to touch-up or otherwise edit your photographic images on a Psion computer will usually render them useless for high-quality work, as once edited, the files will always be saved at these low bit depths. If you simply intend to keep the images on your Psion, perhaps as a simple photo album or for some kind of business presentation, you may find it useful to perform some simple image editing directly on your handheld.

MBMView (reviewed in issue 28) allows you to load various image types (including JPEG) and zoom, crop, rotate, flip and print them, even reducing the bit-depth further if desired. Images can also be saved into MBM, GIF, BMP or Sketch format, where they can be edited further or embedded in other Psion applications as Sketch objects. MBMView also has a simple slideshow facility, presenting a sequence of images in succession, albeit without any decorative transition effects. Images in a single folder can also be viewed as small thumbnail images, which is particularly useful if you want to sort through your photographs to make notes on locations, exposure, etc.

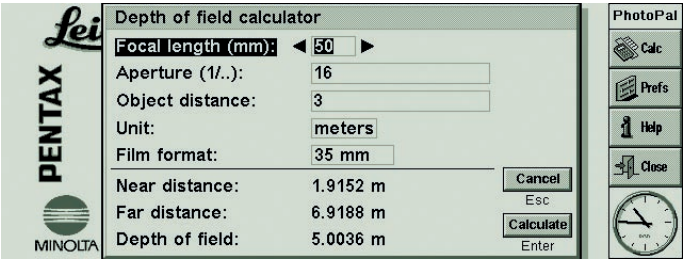
Most Psion image editing programs will only work with MBM files, so MBMView makes a good Psion-based file convertor for this purpose.

If you're looking to apply Photoshop-like effects to your images, **MbmUtils** offers filters for 'Emboss', 'Intensify', 'Motion blur', 'Ripple', 'Skew' and 'Solarize'. Although none of these warrant more than very occasional use, MbmUtils has several other useful features, such as flip and rotate, printing of images and import/export in Sketch format.

There are a number of other Psion-based image viewers available, but most don't support colour, and offer few photo editing capabilities beyond the two programs mentioned above, being better suited to bitmapped graphics.

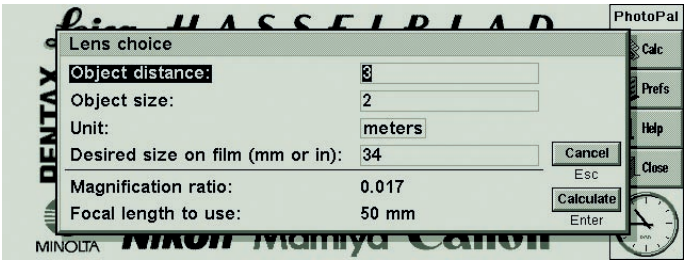
Careful with colour!

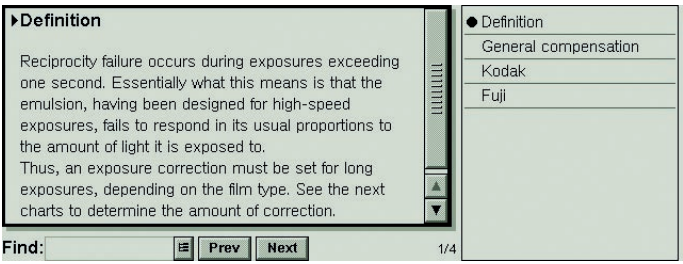
If you're planning to view your photographs in colour on a Series 7 or netBook, your images will usually look better if you convert them into 256-colour mode on your desktop computer first, rather than transferring them directly from camera to Psion. This will optimise the colour palette to minimise the amount of dithering required to display the image. You can perform this procedure with most desktop-based image editing packages, including **PaintShop Pro** on a PC or **GraphicConverter** on an Apple Macintosh.



PhotoPal offers a wealth of photography aids, including an excellent depth-of-field calculator

Fill in the blanks and PhotoPal will give you the optimum focal length to use for a given job





PhotoPal has its own built-in reciprocity failure fact database

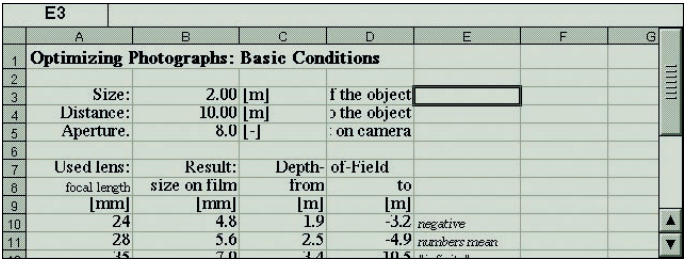
View only

If you want to view a slideshow of photographic images, complete with PowerPoint-like transition effects such as fading, scrolling, dissolve, and so on, **5FX** (reviewed on page 28) fits the bill nicely, and handles colour as well as greyscale images.

Photographer's aids

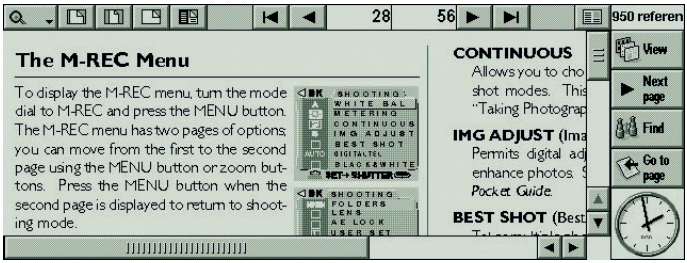
Apart from viewing your images, there are some general photography aids that can help you to take better pictures or keep track of your work. **PhotoPal** offers an excellent set of tools to calculate depth of field, focus, flash settings, lens and film choices, plus various other useful bits. There's also a second ticker to help with long exposures, a handy Data file with reference information (including embedded tables) on reciprocity failure, plus an option to link up to five of your own Data files, containing further facts and figures.

Far less polished, but offering some of the functionality of PhotoPal, you'll find a small assortment of photography-related Sheet files in the 'Leisure - Miscellaneous' section of the PocketInfo web site



	A	B	C	D	E	F	G
1	Optimizing Photographs: Basic Conditions						
2							
3	Size:	2.00	[m]	f the object			
4	Distance:	10.00	[m]	o the object			
5	Aperture.	8.0	[-]	: on camera			
6							
7	Used lens:	Result:	Depth-	of-Field			
8	focal length	size on film	from	to			
9	[mm]	[mm]	[m]	[m]			
10	24	4.8	1.9	-3.2	negative		
11	28	5.6	2.5	-4.9	numbers mean		

You'll find some useful photography-related spreadsheets on PocketInfo



With Pdf+ you can keep your digital camera manuals to hand at all times

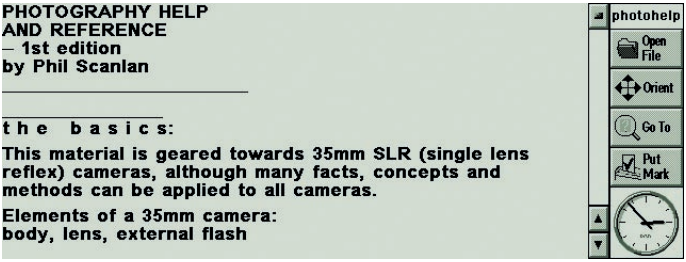
(*3lib.ukonline.co.uk/pocketinfo*), most of the content of which you'll also find on recent editions of the Palmtop CD.

Reference books to go

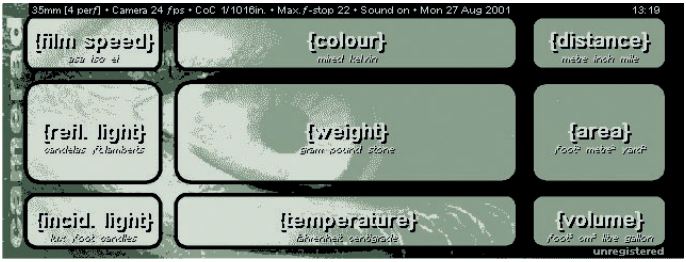
If using a digital camera, you'll usually find that all the user manuals and documentation are supplied on CD in PDF (Adobe Acrobat) format. With a copy of **Pdf+** you'll be able to keep all this information to hand, just in case you need it, without having to lug paper copies around—and it's quicker to find the topic you need in a hurry.

Documents

There's a small but useful selection of photography-related files on the **MemoWare** web site (*www.memoware.com*), including 'Photography Help and Reference', 'Tips on Photographing Night Scenes' and 'How to Start a Photography Business'. Most files are in 'DOC' format, so you'll need a suitable ebook reader such as **VReader5** or **EBook** (see 'Worth a Read' in issue 33 for details).



Photography reference documents from the MemoWare web site



A specialist tool designed primarily for movie camera assistants —Camerad

Grow your own

If you want to keep a record of the photographs you take, noting down locations, exposure details and so on, it's a two minute job to set up a custom Data file with exactly the fields you want. If you prefer the data in a tabular format with the ability to include calculations then do it with Sheet instead, perhaps keeping a separate file for each roll of film or photo assignment.

If you have a few specific calculation types that you use on a regular basis then try setting up the appropriate formulae in Sheet, locking the cells where appropriate to prevent the underlying formulae from being overwritten. The spreadsheet files on PocketInfo offer a good starting point if you're unsure on how to proceed.

Movies too

For the professional movie camera assistant, **Camerad** is a specialist tool that consists of various modules to help perform mathematical calculations while on the film set.

Availability

pIBeam - $20 from *www.psiloc.com* (reviewed in issue 34)

PsiMX - free, on all recent Palmtop CDs

PsiCam - free, on all recent Palmtop CDs

MBMView - $25 from *ourworld.compuserve.com/homepages/platodva/psion.htm*

MBMUtils - £16 from *www.pocketiq.com*

PaintShop Pro - £80 from *www.digitalworkshop.com*

GraphicConverter - $30 from *www.lemkesoft.com*

5FX - £15 from *www.stampark.co.uk*

PhotoPal - free from *www.pocketiq.com*

Pdf+ - $22 from *www.mbrainsoftware.com*

VReader5 - free, on all recent Palmtop CDs

EBook - £10 from *www.geocities.com/ebookepoc*

Camerad - $68 from *www.cinematography.org/camerad*

The write stuff

Have you ever been tempted to try out one of the handwriting recognition programs available for your Psion? Steve Clack sorts the best from the also-rans

Despite having used most kinds of handwriting and gesture recognition software at some time or another, in my opinion, for general use most Psion users are still best served by the built-in keyboard.

The Series 5 keyboard still ranks as one of the very best ever produced for a handheld device, and the superb Series 7/netBook keyboard is good enough and big enough to allow touch typing, as with a full-sized laptop or desktop computer.

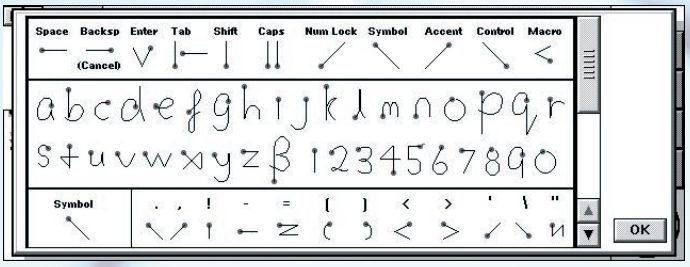
Although I've never been a big fan of the Revo keyboard, it still allows much faster input speeds than any kind of Psion-based handwriting or gesture recognition system, even if you're new to the idiosyncrasies of the ubiquitous QWERTY keyboard.

Still, even the world's best keyboard is virtually useless in complete darkness, and in instances where you need one hand just to steady the palmtop device (perhaps while standing on a busy train), there may be some benefit to a solution that allows you to scribble your text on screen instead.

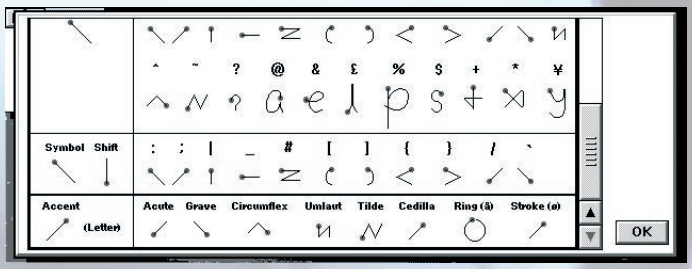
Little gestures

The first commercial gesture recognition program to appear on the market for Psion computers was Purple Software's **Allegro**. Gesture recognition, as opposed to true handwriting recognition, involves entering individual 'characters' on screen, which are then recognised as the appropriate letters (or numbers, or punctuation), one at a time. This is the same concept as used by the 'Graffiti' system that's built into all Palm OS organisers. It has the benefit that single, deliberate, strokes are easier for the computer to recognise than scrawled letters, particularly considering that in normal handwriting there are often several alternative ways to write a given character.

Although Allegro forces you to use its own set of 'gestures' in place of the regular alphabet, the good news is that most of them are almost or exactly the same as you'd normally write individual letters, and it takes no more than 10 minutes to learn all the ones that aren't. The more commonly used special characters are generally quite straightforward, with a left-to-right stroke to represent a space, right-to-left to represent a backspace, an upward stroke for 'Shift', and so on. Remembering all



The basic Allegro 'alphabet' is easy to learn. The black dots indicate where to start each stroke

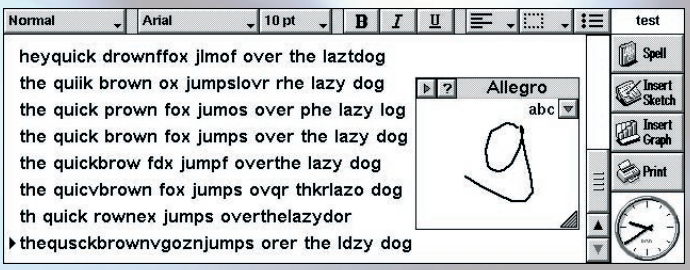


Punctuation, accented characters and symbols understandably take a little longer to memorise

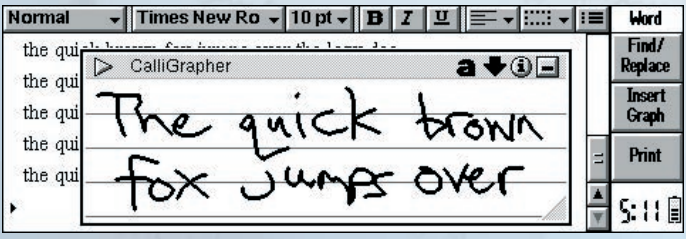
the accented foreign characters and punctuation marks takes a little more application, but is easy enough if you use Allegro on a regular basis.

In use, Allegro pops up a little resizeable window in front of whatever application you're already running. You can then drag it to whatever position you like and start entering text, one gesture at a time. You have the option to rotate the input window by 90 degrees and enter the text sideways if you prefer, though this of course makes it hard to check the text as it gradually appears, letter by letter, in your underlying application.

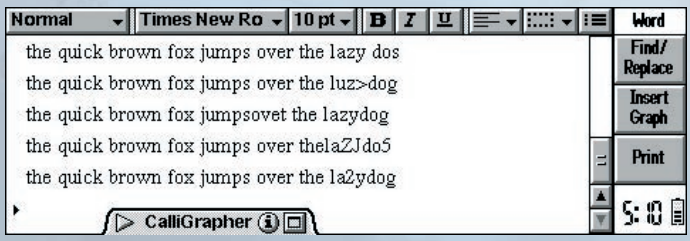
As with all gesture recognition systems, the slower and more deliberate your strokes, the better the accuracy. At all events, one or two gestures per second is the best you can hope to achieve, which translates to little more than 10 words per minute. This takes into account the fact that at least 10-20% of your gestures will probably be misinterpreted, requiring slow backspacing and repeat entry of characters. Interestingly, recognition accuracy is noticeably better on



Entering gestures into the movable, scaleable, rotatable Allegro input window



Calligrapher allows 'real' handwriting on screen, but separate letters work best



The Calligrapher input window minimised —accuracy is generally better than with Allegro

a Series 7 or netBook, suggesting that processor horsepower is a limiting factor.

Aside from character-by-character entry, Allegro has a useful macro facility that can be used to assign each of the 26 alphabetic characters to mimic special keystroke combinations, date and time stamps, etc. A separate 'Clipbook' feature also allows formatted text and graphics to be saved from the system clipboard and then retrieved using macros.

Allegro runs on the Series 5mx, Series 7 and netBook, and is available as 'Allegro Classic' for the Revo and Oregon Osaris.

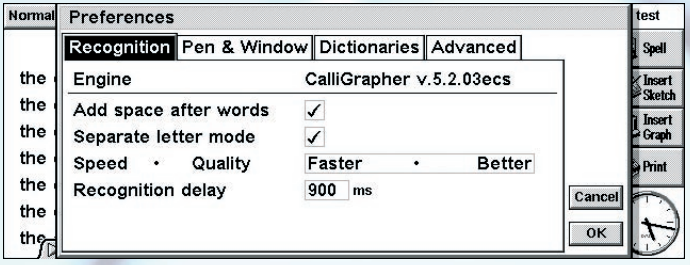
Real writing

Appearing on the scene almost a year after Allegro, Atelier's ambitious **Calligrapher** claims not only the ability to recognise 'normal' letters rather than pre-defined gestures, but also to recognise cursive (joined) handwriting.

The reality is that even with very neat 'joined' handwriting, Calligrapher's accuracy leaves a lot to be desired, which is hardly surprising, considering the complexity of the task it's trying to perform. By writing individual characters though, the accuracy can be quite impressive—certainly up to 95 percent or so.

As with Allegro, Calligrapher's input window is moveable, resizeable and rotatable, and you can even use it upside down. There's also a neat facility to minimise the window to the edge of the screen, rather than sending it to the background every time you want to hide it.

There's plenty of configurability within Calligrapher, most of it designed to maximise your input accuracy. By default, words are looked up from within the software's 66,000 word dictionary, as you type. Although this improves accuracy, it does result in a few seconds delay as you wait for each screenful of text to be interpreted, checked and finally passed back to the underlying application. There's also the option to use a smaller, 5000 word dictionary, or to turn the dictionaries



Lots of settings to be optimised in Calligrapher, but this can make a big difference to recognition speed and accuracy

off entirely. Demonstrating that processor power is again the major limitation (exactly as with Allegro), disabling the dictionary results in fairly fast and accurate input on a Series 7 or netBook, but dismally poor accuracy if the same thing is tried on a Series 5mx or Revo. This also matches the results of our original review of Calligrapher back in issue 20, when running on a slower Series 5 Classic, the software gave less impressive results.

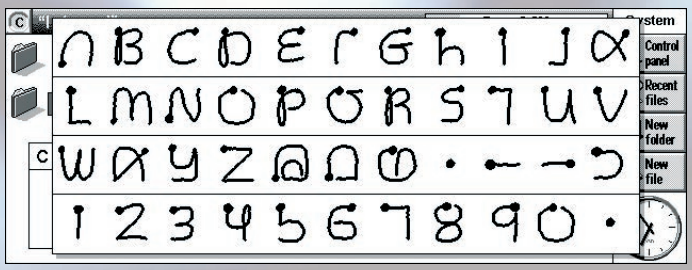
Overall speed will of course depend upon the neatness of your writing and how well you optimise Calligrapher's various settings, but with a little practice you should be able to achieve 15-20 words per minute on a Revo or Series 5mx (both running at 37MHz, as opposed to the original Series 5's 18MHz). On a 190MHz netBook, up to 25 w.p.m. is feasible, at least for short bursts. This compares well to using Graffiti on a dedicated Palm OS handheld device.

Calligrapher includes a glossary feature for assigning short (unformatted) text blocks to shortcut strokes, so you can enter "ty" and have Calligrapher expand it to "thank you", for example. It runs on all current models, including the Revo and Oregon Osaris.

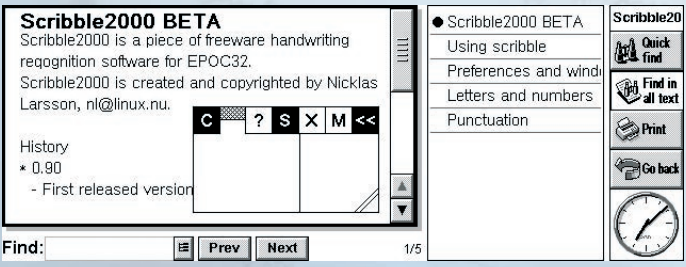
Anyone for Graffiti?

If you're used to Graffiti recognition on Palm OS organisers, your interest may be aroused by **Scribble 2000**, a freeware utility designed to mimic Graffiti input on your Psion. The 'latest' version (0.91, still a beta release) is more than a year old now, with development of the software apparently having been abandoned some time ago.

Although the basic principle is sound, Scribble uses a slightly modified version of the Graffiti standard, and each gesture must be entered precisely as per the screen shown below. The big problem is, a few



Scribble 2000's (modified) Graffiti alphabet



Scribble's input window: left side for letters, right side for numbers, plus configuration options

characters refuse to work when input as suggested ("q" appears almost impossible, "x" is difficult, "g" is temperamental), making it mandatory to resort to keyboard input for those letters. This a great pity, as otherwise Scribble generally manages better recognition accuracy than Allegro. With a little further optimisation by a talented programmer, Scribble 200 could become quite useful.

Series 5 only...

Worthy of little more than an honorary mention, the freeware **WriteIt** is intended to work in a similar manner to Scribble 2000, but uses its very own set of (angular) gestures to represent alphanumeric characters. The bad news is that it only runs on the Series 5 range, and the recognition system is so unreliable as to make it completely useless. The program now appears to have disappeared without trace, available only on the Palmtop CD.

...Series 7 and netBook only

Aimed solely at Series 7 and netBook models (perhaps the Psion devices least likely to need a handwriting recognition system), Palmanac's **Handright** follows the basic brief of Allegro, but has no preconceived ideas of what your gestures should look like. Upon first starting up the program, you're prompted to enter all of the letters of the alphabet, numbers and punctuation

The Handright input window in a Series 7, showing the once-only startup prompt

Handright allows easy addition and removal of sample character shapes

marks in sequence, exactly as you like to write them. This 'teaches' Handright how to recognise your gestures.

The advantage of this is that you can write each character however you wish, *provided* of course that you do it the same way each time. Thus you can teach it to recognise your letters exactly as you'd write them on paper, or even according to the Palm Graffiti 'alphabet'. This approach does require a little forethought, as the shape of each gesture must be sufficiently different from all the others to prevent Handright from getting confused. Once properly set up, however, you can expect to get close to 100 percent accuracy with care. To help maximise this you can add up to eight character shapes for each letter, and it's easy to add and remove these on the fly, during normal text input.

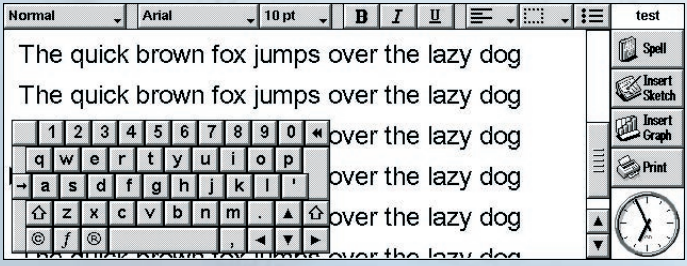
Selecting uppercase letters, numbers or symbols requires a quick tap on the appropriate icon in the input window first, which slows things down a touch, but to help compensate for this there's a useful macro facility, similar to that in Allegro.

In use, the major downside is that you must wait for each character to be recognised and entered into the underlying application before entering the next one, a process which limits the effective input speed to around 10 words per minute or so.

A miniature keyboard

Aside from gesture and handwriting recognition, the remaining option for keyboardless data entry is to use an on-screen *virtual* keyboard, where the letter 'keys' can be tapped with a stylus. The only such program available for Psion computers is Neuon's freeware **NightKeys**. Sadly it's not Revo-compatible, but works happily on all other current Psion models.

NightKeys can be set to pop up in the foreground of all applications, whereby you merely tap out each character as you would on a real keyboard. The keyboard itself can be moved anywhere on screen, set to any of four sizes, and minimised to an icon at the corner of the screen when you need to



NightKeys offers a handy on-screen keyboard for quick text entry

move it out of the way. Tapping a special modifier key gives easy access to symbols.

The only real criticism of NightKeys is that its response to dragging the keyboard around the screen is rather sluggish, with it sometimes 'dropping' itself down in the wrong place before the move is complete. The best part is that with minimal practice, speeds of 25-30 words per minute are realistically attainable.

Which is best?

So which is the best solution for keyboardless text input? If you've got anything *except* a Revo and want to attain the fastest possible speeds (as almost everyone does), then **NightKeys** is likely to be your best option—especially as it's free. If you're a Revo user and/or have *major* difficulties in using a QWERTY keyboard, then you'll need to try one of the other options.

Of the three gesture recognition programs available, **Handright** is well worth a try if you're running a Series 7 or netBook, otherwise **Allegro** is your best bet—unless you find that you can persuade **Scribble 2000** to recognise all your gestures.

However, **Calligrapher** offers a very intuitive text entry system with less of a learning curve and generally better speed. For most users it's still not as fast or as accurate as NightKeys, but if you're intent on scribbling out your letters on screen then it's the one to go for.

A final word of warning. If you do a lot of work using any of the text recognition programs, then don't forget that it will substantially add to the wear and tear on your touch screen. Although certainly useful in complete darkness when normal keyboard input is impossible, the best primary input method for any Psion computer remains its (rather excellent) keyboard.

Availability

Allegro - £45 from *www.purplesoft.com*

Allegro Classic - £27 from *www.purplesoft.com*

Calligrapher - $60 from *www.ateliersoftware.com/epoc*

Scribble 2000 - free, on recent Palmtop CDs

Handright - free from *www.palmanac.co.uk*

NightKeys - free from *www.neuon.com*

8 great prizes to be won!!

FIVE PalmTec cases and THREE 4-way
multi-function stylus pens worth almost £300 in total!

You choose your prize: any PalmTec case (including Pod hard cases for the Series 5/5mx in a range of metallic painted colours), Shell hard cases for the Revo in a range of metallic painted colours, Semi Rigid Cases for the Series 7/netBook, and funky neoprene cases in any one of three two-tone colours (available for any model), or multi-function 4-way pointers (suitable for all Psion models). All winners will also receive a free pack of PalmTec's colourful translucent plastic pointers for the Series 5/7 or the Revo.

All entries must be submitted by 31st October 2001. The decision of Palmtop Publications and PalmTec is final. Last issue's correct answers were: 1. Psion concept devices, 2. MondoPondo, 3. Nokia 9210.

Just answer the three questions below and submit them on the special page at PalmTec's web site on www.palmtec.com/palmtop.htm, where you will also be required to state your prize preference.

1. **What PC program is complemented by Presentation Maker?**
2. **What is the name of the new Psion Teklogix tablet device?**
3. **Which text recognition program understands handwriting?**

Getting to grips with Macro5

In the fourth part of this ongoing series, Steve Clack delves further into one of EPOC's most powerful third party utilities

Having looked at all the various shortcut types in the last issue, we'll now move on to create some multi-step shortcuts that start to unleash the real power of Macro5.

Shortcuts and macros

Although the terms 'shortcut' and 'macro' are generally taken to mean the same thing, the sample we created in issue 33 was simply a means to access a commonly-used file via a single keystroke—quite literally a 'shortcut'. In this issue, we'll look at shortcuts that involve several steps: switching between programs, making menu selections, accessing dialog boxes, etc. This kind of shortcut is perhaps better described as a true 'macro'.

Creating a multi-step macro

There are two ways to create any macro that comprises several steps. The first is to set Macro5 into 'record' mode, which then tracks all keypresses and screen taps until the record mode is switched off again, effectively keeping a sequential log of all the operations needed to perform the desired task. These can then be 'played back' on demand, effectively mimicking the various steps of your task in quick succession.

The second method is to open up your Psion's built-in OPL editor and use Macro5's OPL-like scripting language to define each step of the shortcut by hand. Don't worry though—even though the process is probably more straightforward than you'd imagine, 95% of macros can be created without even opening the OPL editor, and require no 'programming' whatsoever. In case you're still worried that this all might turn complicated, I have to confess that I have no personal programming experience, and have always got by quite happily with Macro5.

One of the great things about Macro5 is that even when you create a macro using the 'record mode' option, Macro5 automatically generates the OPL code for those steps. This means that if you feel the urge, you can go into the resulting file and browse through it, to see how your shortcut keystrokes translate into program code. Once you start examining your macros in

this way, it's usually surprising how easy it is to make sense of what's going on, even if you've never seen a single line of OPL code before.

For the time being we'll do things using the first method, and then move on to adding a few features 'manually', via the OPL editor.

Something useful

As our first example of a multi-step macro, we'll record a sequence that will go into the System 'Preferences' screen, toggle the 'Show hidden files' and 'Show System folder' settings: checking them if they were previously unchecked, unchecking them if they were previously checked.

This task is something you probably perform quite often, whenever you want to change or examine the contents of your (normally hidden) System folder. In fact, you probably run essentially the same operation *twice* on every occasion: unhiding the System folder and hidden files while you work on them, then hiding them again to tidy your System screen when finished.

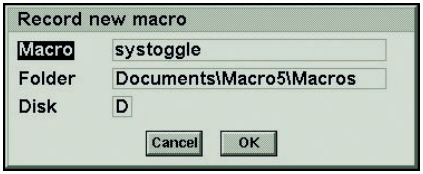
Normally, this operation involves selecting the 'Tools | Preferences...' command ([Ctrl]+[K]), then checking or unchecking the two boxes in the resulting dialog and finally selecting 'OK' to dismiss it.

A little planning

Before recording any multi-step macro, it's sensible to give a little thought to what you're trying to achieve. Remember that the macro is essentially doing little more than 'memorising' a sequence of keystrokes, ready to replay them on demand. This has the potential to cause unexpected behaviour if ever you play back your macros 'out of context'. As an example, in Agenda, the keystrokes '[Shift]+[Ctrl]+[R]' will bring up a dialog to rename your to-do list, whereas if the same keystrokes were replayed in the System screen, they would bring up a dialog to reformat your entire disk! It's easy to see that by going a little further and adding certain other keystrokes to the macro, the disk could be completely reformatted without manual intervention. For this reason, it's always important to ensure that your macro is set up to prevent such unwanted behaviour.

Here are the steps for setting up our simple multi-step macro:

1. First, go into Macro5 edit mode (i.e. select it from your Extras bar, as we've done in previous instalments).
2. The next stage is to record the steps of the macro, which will then be saved automatically as a small OPL file. To do this, choose 'Shortcuts | Record macro...' From the resulting dialog, choose a short name for the macro. As we're using this as a shortcut to toggle the System settings, we'll name it as "systoggle". You can leave the 'Folder' and 'Disk' settings untouched, as these will be the default macro location we set up a few instalments back.
3. You'll then be presented with the 'Switch to' dialog. This allows you to specify which program you want to switch



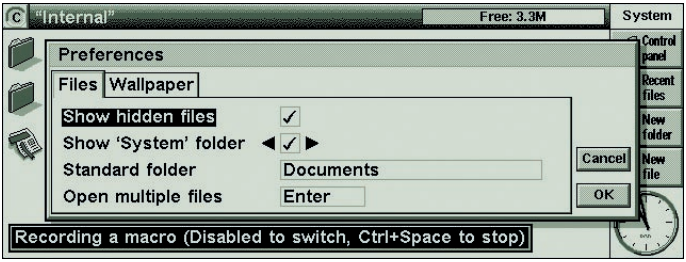
Setting up to record a new macro

Telling Macro5 where to switch to...

to before replaying the macro, which avoids the problem of playing out of context that we looked at above. As an example, if you were recording a macro to do something within your Agenda file, you'd need to set this dialog to point to the required Agenda file.

For this particular macro, we want to ensure that it's always replayed from within the System screen, where the keystrokes will have the desired effect. To select the System screen as the 'program' to switch to, change the 'Disk' line in the 'Switch to' dialog to "Z", which is the internal ROM of your machine—where the System 'program' resides. Next, navigate the 'Folder' line to "System\Apps\Shell", and the 'Task' line to "Shell.app". Finally, and most importantly, check the 'Record this switch' box, otherwise when you select 'OK', your settings for the dialog will simply be ignored. Make a mental note of the settings you've used here, and reuse them whenever you need a macro to replay within the System screen.

3. Select 'OK' to save and dismiss the dialog, and you'll then be taken back to the System screen, with a flashing prompt at the bottom of the screen, saying 'Recording a macro (Disabled to switch, Ctrl+Space to stop)'.
4. Now you're ready to record the actual steps of the macro. This is simply a matter of entering all the keystrokes of the deisired operation, one-by-one.
5. The first step of the macro is to bring up the 'Preferences' screen. You can do this either by selecting 'Tools | Preferences...' with the menu and arrow keys, or entering the [Ctrl]+[K] keyboard shortcut directly. Either way, Macro5 will simply record that you have selected this menu option. It's good practice *not* to use the stylus to select what you want, for reasons we'll come to in the next instalment.
6. From the resulting dialog, use a single press of the right or left arrow key to check/uncheck the status of the 'Show hidden files' line. Then press the down arrow key once to go to the 'Show System folder' line, and press the right or left arrow key to check/uncheck the status of that line.



Recording in progress! Everything you type now will be stored in the new macro

Assigning our pre-recorded macro to one of Macro5's 84 'slots'

7. Finally, press [Enter] to close the dialog. As the recording process is now complete, use [Ctrl]+[Space] to stop the macro. This will drop you into the OPL editor, so that you can see what you've recorded.
8. Don't be perturbed by the seemingly complex lines of program code that you see before you—we'll examine these in the next instalment. For now, simply tap the 'Tran' button in the toolbar to the right, (which, in case you're interested in the technicalities, will translate the OPL program code into an executable OPO file).
9. Next, you'll see a dialog asking whether you want to 'Run program?' Select 'No', and exit the OPL editor to take yourself back to the System screen.

It's there!

The macro has now been recorded, ready to be assigned to one of Macro5's three shortcut panels, as described back in issue 33's instalment. Let's go through the process again:

1. Select Macro5 again from the Extras bar, and move the highlight to whatever panel slot you wish to assign the 'systoggle' macro to, say the letter 'T' (for 'T'oggle).
2. From the desired slot position, press [Enter] and type 'Systoggle' in the 'Caption' line. Then move down a line and set 'Type' to 'Macro'.
3. Hit 'Next>>>' and, from the dialog that appears, choose 'systoggle.opo', which is the program file containing the macro we just created.
4. Press [Enter] to close the dialog and complete the operation.

Now, whenever you invoke Macro5 (in 'launch' mode of course, not 'edit' mode), and select 'Systoggle', your macro will be faithfully replayed.

As the macro replays, you'll see the appropriate menu selections and dialogs flashing up very briefly on screen, as Macro5 plays back all the steps you recorded earlier, in double-quick time. Because we've set the macro always to switch to the System screen *before* replaying, you can safely run it from within any program on your Psion, knowing that it will always play back correctly.

In the next instalment we'll examine what went on 'behind the scenes' during our recording sequence, and add a few manual steps of our own.

Getting along with Presentation Maker

Steve Litchfield shows off this longstanding presentation utility and provides a guide to getting the most from it

It's something of a tribute to this, one of the very oldest packages created for the Psion Series 5, that it works more or less perfectly, unchanged, on a modern Revo Plus, with smaller screen, upgraded operating system and faster processor.

Although Presentation Maker has never been a top selling package, this probably has more to do with its niche nature than any defects or problems. It's designed to allow Microsoft PowerPoint-compatible presentations to be designed and written on the move, immediately limiting it to those who have to make presentations for a living, or perhaps as part of a club commitment.

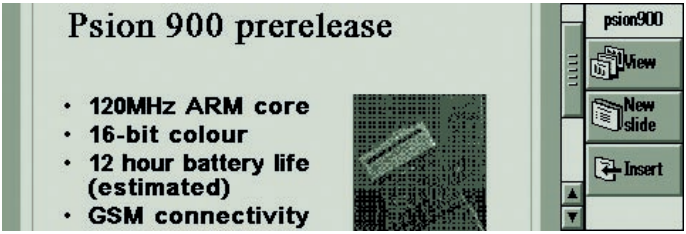
Possibly the biggest single obstacle to a seamless workflow is the monochrome nature of most Psion displays and graphics. Trying to present to a prospective customer on a small and indistinct palmtop screen is obviously a no-no and there's no easy way to plug a Psion into a VGA projector (although see the mention of the Colorshow kit in issue 28). And converting a presentation for use on the desktop finds the result grey and boring, almost by definition.

Presentation Maker's main use is therefore in preparing raw, outlined and roughly formatted content that can be polished up quickly on a colour desktop before showing off to a client. Luckily, it excels at this, as we'll see here, providing a very flexible and usable tool for creating rich, structured slides while travelling, using as a minimum nothing more than a humble Psion Revo.

Starting points

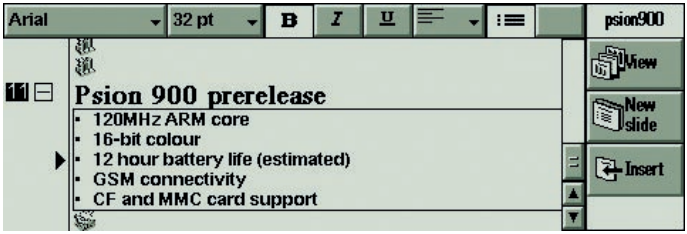
Although you could, in theory, convert across an existing PowerPoint presentation from your desktop, editing and extending it on the Psion before converting it back, it's more than a little frustrating to see a lot of your carefully crafted presentation design inadvertently mangled during the three-stage process. Better to start on the Psion, using Presentation Maker's tools to create original content, without worrying too much about accurate formatting and layout.

When creating your first slide (and every one thereafter), Presentation Maker offers a good variety of templates, but it's best to think twice before using these. They



WYSOTSVIWYG —What You See On The Slide View Is What You Get

The Outline view is perfect for getting thoughts and points down in a hurry



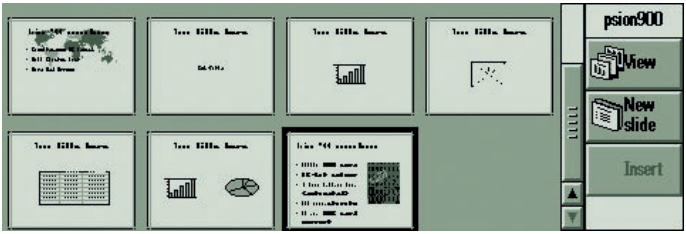
all come with their own default fonts and formatting (which you'll probably want to change anyway) and many include sketches and graphs (which you'll almost certainly want to redo on the desktop). The best approach, as with creating word processed documents on a regular basis, is to stop and think for a moment before starting to type in earnest, trying a few test slides, converting them across to the desktop (by 'Exporting' from Presentation Maker and then using PsiWin drag-and-drop). You can then examine the results on the screen display to be used for the presentation and establish the Presentation Maker text styles, fonts and positioning that work best and involve least rework on the desktop.

Once you're happy with the results, you can then make up a 'master' slide in Presentation Maker, set up with all the correct text styles and positioning, and simply Copy and Paste it to create each new slide.

Working on a show

Presentation Maker has three main views, each of which is important if you're going to make best use of the package.

The main Slide view lets you work on a slide's layout, editing text 'in-place' and allowing you to zoom in and out in order to make detailed changes. Graphical elements can be dragged around using the stylus and [Ctrl] key, or resized using the 'handles' that appear when an element is selected. Everything appears in as WYSIWYG a form as possible, and impressively so considering the usual graphical limitations of EPOC 'office' applications. With nothing selected, [Shift] and the left and right arrow keys let you move forwards and backwards between slides, a handy shortcut considering that the top toolbar navigation buttons don't display at all on the Revo range.

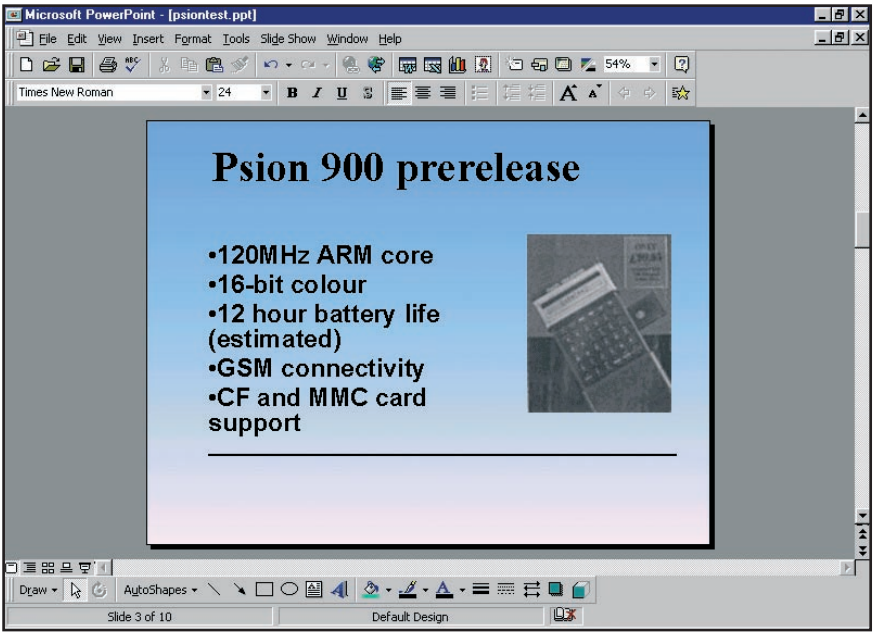


The Multi-Slide table can be used for overseeing and organising your slides

Outline view is where you create text content in a hurry, streaming your thoughts into titles and bullet points and optionally 'collapsing' those parts of the outline that aren't immediately relevant to the section you're creating.

The Multi-Slide view is most satisfying of all, with a thumbnail gallery of all slides created so far. It's here that you can get a feel for the length and intensity of your presentation and perform drag-and drop-slide moves (by holding down the [Ctrl] key).

Incidentally, you can't use 'Printing | Print Preview' to browse through your presentation, as only graphic elements are shown here—text appears invisible. Most of 'Printing | Page setup' is also pretty pointless, as header and footer information entered here is not transferred to the desktop.



Embellishing a presentation in PowerPoint, back on the desktop

Presentation Maker top tips

1. Make sure you install the free Sketch application (*www.epocware.com*) if you're using a Revo, so that Presentation Maker can call upon it to display and edit graphics.
2. Unlike Sketch, Presentation Maker has an extensible collection of clipart. These are just standard MBM (EPOC Picture) files in named folders. Make sure you read the section 'Creating your own clipart' in the Help database.
3. While we're on the subject, the Help database in Presentation Maker is extremely good. Make sure you read as much of it as possible.
4. Become familiar with the screen cues. Tapping once on something selects its place-holder, tapping again either positions the cursor for text editing/formatting or opens up the object for editing in another application.
5. With a placeholder selected, the up and down arrow keys move between other placeholders on the slide.
6. If you do decide to insert simple 'Graphs' and 'Agendas', both Sheet objects, make sure you exit Sheet in the correct mode, i.e. the last view you saw when editing the object is the one that will 'show through' onto the slide.
7. By using 'Edit | Object | Move to back', you can position simple graphics behind your main presentation text, for special effects, although as usual you may find the result too ugly when converted onto the desktop.

Back on the desktop

The two-stage process of 'Exporting' from Presentation Maker and then using PsiWin to convert the result into a PowerPoint document on the PC desktop, results in a fully populated but drab presentation.

Provided you haven't got many graphical elements though, it's the work of only a few minutes to put things to right. PowerPoint's 'Format | Background' puts in a plain or fancy background of your choice and 'View | Header and Footer | Apply to All' puts in text elements to annotate each slide handout appropriately. Then it's just a case of reviewing any bitmap graphical elements that may have come across, colourising them in your default bitmap editor or replacing them with full colour equivalents.

There's no doubt that for a fancy presentation you will have to do quite a bit of work on the desktop, but the essential text content is already in place, entered on the Psion as the ideas 'flowed'.

Availability

Although rarely found in boxed form these days, Presentation Maker is still available for purchase and download on the Internet (£50, from Psion's own Software Store, at *www.psion.com*).

Working with Sheet

Confused or intimidated by Sheet? Steve Litchfield explains all about formulae and how to copy and paste them, in the second part of our tutorial series for spreadsheet beginners

In the first instalment of this series, I showed you how to lay out text in Sheet, with a final, simple example of adding up a row of numbers. It's this ability to work with numbers that sets a spreadsheet apart and makes it so incredibly useful.

Formulae

Central to this functionality are formulae, for example, '=SUM(A1:A4)'. This is a simple formula for calculating the sum of cells A1 to A4 inclusive. A slightly more complicated example might be '=SUM(A1:A4)/B3', dividing the sum of A1 to A4 by the value in cell B3. In extreme circumstances, formulae can get quite long and seemingly complicated, but they're usually simpler than they look and detailed scrutiny will soon reveal what's going on.

Anyone for cricket?

For the purposes of demonstrating a few simple formulae and how to use them, let's create a score recorder for a fictional cricket team. There are 13 people available for selection, 11 of which play in each match, and their batting scores are recorded as the season progresses.

At any point in the season, as the club scorer, you need to be able to tell people their batting average. Adding up numbers and calculating averages is extremely tedious work when done by hand, but Sheet is able to recalculate everything required in a tiny fraction of a second. Hopefully, you'll again appreciate just how much time a spreadsheet can save when used properly.

Laying out the grid

As before, we can start by laying out our ideas and text labels, in this case a title at the top, player names down column A and match fixtures along row 2, as shown in the screenshot at the top of the following page. I've populated the grid with some example scores and, just to make things interesting, I've given some of the players an occasional break, with others from the squad of 13 filling in for them.

Arial | 10 pt | cricketstri

F5 | 24

	A	B	C	D	E	F	G	H
1	**Palmtop CC**	**2001**						
2		Ayles.	Oxford	MK	Eves	Bices.	Devizes	
3	Steve Clack	23	4	45	4	2	32	
4	Paul Nelson	9	6	8	0	23	5	
5	Steve Litchfield	15	0	0	65	24	32	
6	Pete Sipple	10	50	23		20	15	
7	Christian Hayle	13	23		9	34	26	

I've just finished populating my grid with the batting scores so far

Enter data once only

Before proceeding further, let me share a couple of spreadsheet 'tricks' which are going to help enormously. Firstly, *never* duplicate information unnecessarily, i.e. don't enter the same text string or value into two different cells, relying on your own memory to remind you to change one when the other is altered. Instead, use appropriate formulae.

For example, having entered 13 player names in cells A3 to A15, it would be really nice to be able to use this same set of names elsewhere in the spreadsheet without having to type them in all over again and run the risk of an alteration in the original list not being reflected in the second set. Just move down to cell A18 and enter the trivial formula "=A3". You'll immediately see your first player name displayed. Into cell A19, enter "=A4" and you'll see the second name. But before we rush off and fill in the next 11 cells, read on to my next trick, which will save a lot of typing.

The most useful Sheet trick you'll ever learn

In common with other computer spreadsheets, Sheet is surprisingly 'intelligent'. When formulae are copied and pasted into different cells, Sheet automatically adjusts the cell references for you, 'doing the right thing' 99% of the time. This can be difficult to appreciate fully, which is why we're going to use it now in our cricket scorebook example.

Having to type a similar formula into A20, A21, etc., adjusting the cell reference each time, is obviously laborious. You might grit your teeth and do it manually for just these extra 11 cells, but what about next time, or the time where your spreadsheet has 100 rows and the formula is 50 characters long with eight cell references that all need changing?

Here's the trick, which you'll find yourself using in just about every spreadsheet you ever write, and which will save you many hours of tedium. Select either A18 or A19

Arial | 10 pt | cricketstri

A18 | =A3

	A	B	C	D	E	F	G	H
16								
17	**Averages**							
18	Steve Clack							
19	Paul Nelson							
20	Steve Litchfield							
21	Pete Sipple							
22	Christian Hayle							

Using a trivial formula to save re-entering player names elsewhere in the sheet

Arial | 10 pt | cricketstri

B19 =COUNT(B15:G15)

	A	B	C	D	E	F	G	H
25	Anne Johnstone	5						
26	Steve Mann	6						
27	Steve Turczyn	5						
28	Joe Boggins	6						
29	Cuthbert Winkle	2						
30	Ivor Batanball	2						
31								

Here I've just finished Pasting in my COUNT formula down the range B19 to B30

and Copy ([Ctrl]+[C]) its contents (the simple formula) to the clipboard. Now, use the stylus (or [Shift] and the arrow keys) to select the entire range A20 to A30, with the cells displaying in reverse video as usual. Use the Paste ([Ctrl]+[V]) command and you'll see that Sheet not only fills the formula into each cell, it's clever enough to amend it for each one.

Essentially, Sheet sees that you're pasting a single formula into a range of adjacent cells in a column and (rightly) assumes that you'd like each row to behave in the same way. It then calculates the vertical offset between the original cell whose contents you copied and each new cell being pasted into, and amends any row references appropriately by that amount.

Introducing COUNT

We now have our squad of 13 players listed again underneath the main score entry area, which is left uncluttered and available for the simple task of entering new scores each week. The new area is ideal for doing special calculations and reports, in this case working out each player's average. Move to cells B17 to D17 and put in some more headings, "Innings", "Runs" and "Average". Now to reapply the formula pasting trick we learned above.

In cell B18, type in the formula "=COUNT(B3:G3)". COUNT is another of Sheet's special functions (like SUM), and does exactly what you might think from its name. It counts up the number of cells with numeric data in within the specified cell range, i.e. Sheet examines B3 to G3 and finds six cells containing numbers.

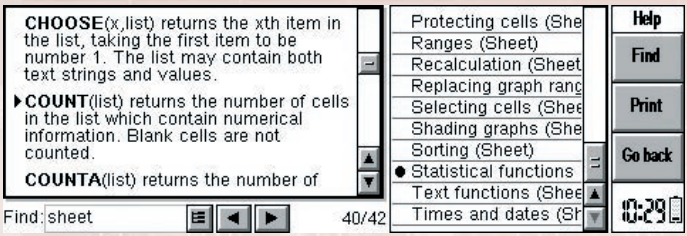
Note that it's important in our example to count the number of innings a player has had, as some players haven't batted in all six matches. Cricket enthusiasts might also like to note that I'm simplifying the scoring system slightly for the sake of this example (ignoring 'not outs').

More formula pasting

Copy the formula in B18 to Sheet's clipboard, select B19 to B30 and Paste the formula into the range. As before, you'll find that the formula is automatically adjusted for each row and that you now have a correct innings count for each player.

Using the Paste trick again, together with the SUM function we encountered first, it's easy to add up the number of runs each player has scored. Enter "=SUM(B3:G3)" into C18, Copy it into the clipboard and Paste it down the range C19 to C30 in the (by now) usual way.

The average score for each player is obviously just the total number of runs scored



Details on all Sheet's functions can be found in the excellent online help database

(in column C) divided by the number of innings (in column B), so go to cell D18 and enter "=C18/B18". Yet again, use the formula pasting trick to copy this down into D19 to D30 and you should have correctly calculated averages for each player.

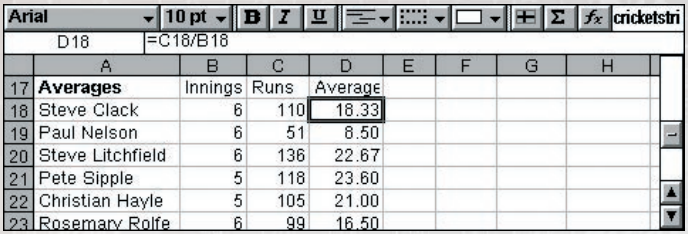
Final touches (for now)

A final cosmetic touch is to limit the appearance of each average to two decimal places, so that the numbers appear properly aligned and to a sensible degree of precision. Select cells D18 to D30 and use the 'Format | Number...' command, choosing 'Fixed' format and '2' decimal places. Don't worry if you're bewildered by the choices on the 'Format' line of the dialog, as I'll be introducing more on numbers and number formats in the next instalment.

In a real cricket scoring environment, the spreadsheet would of course need expanding a little, to cope with more fixtures, 'not out' innings and extra statistics such as bowling figures and averages. No extra knowledge or tricks are required to build such a Sheet though, and if you have sufficient knowledge of the game you might like to try it as an exercise.

Working through this example will have taken you half an hour or so, no doubt longer than it would have taken you to do the sums by hand. But you've learnt some important spreadsheet techniques and hopefully acquired an appreciation for how Sheet might save you a lot of time, particularly on more complex tasks.

Pasting in the formula to perform the averaging, then formatting the cells to two decimal places



	A	B	C	D	E	F	G	H
17	Averages	Innings	Runs	Average				
18	Steve Clack	6	110	18.33				
19	Paul Nelson	6	51	8.50				
20	Steve Litchfield	6	136	22.67				
21	Pete Sipple	5	118	23.60				
22	Christian Hayle	5	105	21.00				
23	Rosemary Rolfe	6	99	16.50				

PalmTec

POS

GREY World?
GREY Life?
GREY Psion?

PalmTec has teamed up with POS and Palmtop Publications to give you the chance to win a colour makeover for your Psion Series 5/5mx and a matching PalmTec hard case worth over a total of £100.

If the beauty of your Psion is skin deep then you need to enter this competition. Hand your Series 5/5mx over to PalmTec and we'll give it a personalised makeover. This allows you to choose the colour of your Psion and match it to one of our Pod hard cases.

Inside one week you could have a metallic blue, green, red or grey Psion in a matching hard case. All the work is fully guaranteed by our team of qualified engineers.

To find out more information about this service then visit www.palmtec.com

To enter the competition to win a makeover and case then please visit www.palmtec.com/competition.html

Contact details:
Tel: +44 (0)1273 722246
Email: sales@palmtec.com
Web: www.palmtec.com

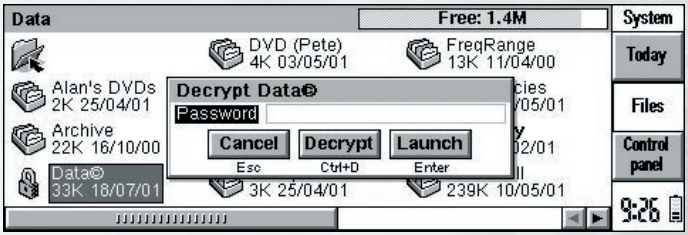
Software Gems

In the second of the series, Pete Sipple looks at some personal must-have software add-ons

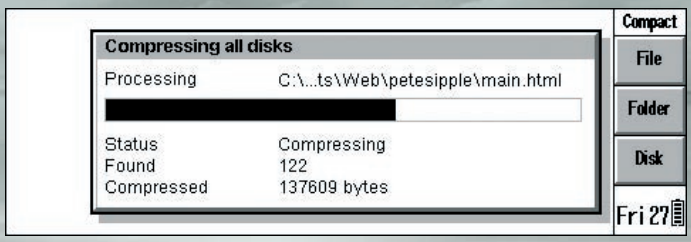
A Series 5mx was my main palmtop until recently, but I've now moved to a Revo Plus, mainly due to its better pocketability. However, as the slimmer machine lacks a CompactFlash slot, I have to be very careful about what's installed. Every now and then I have a purge to remove applications that I no longer use, but there are still several that I'd find it very hard to live without.

Hide your secrets

If you make any serious use of the Internet, you'll find that just about every web site you visit seems to require you to log on, and it doesn't take long to acquire quite a stack of user names and passwords. Plus, there are online banking passwords, credit card details and PINs, keeping track of which would be a nightmare without my Revo. **Crypto** certainly comes under the class of 'gem', as it allows me to encrypt my entire database of numbers, IDs and passwords. Sure, Word and Sheet files already have built-in password protection and encryption, but Crypto adds protection to Data, Agenda, Jotter and Contacts too. In fact, it lets me lock up just about any kind of EPOC document with a password of my choice. The document's icon on the System screen is replaced with a padlock symbol to indicate encryption, and tapping on the file in the normal way prompts for a password before allowing access. Encryption and decryption are performed using the secure RC4 algorithm (256-bit) and it will also wipe out the original source files to prevent an unwanted 'undelete'. It's fast, secure, free and highly



Crypto opening a data file



Compressing my Revo's internal disk with Compact

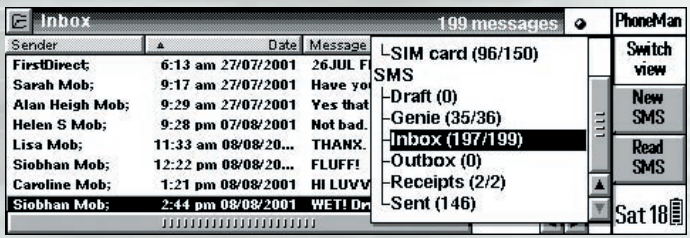
recommended. Incidentally, the help file for Crypto explains that its inspiration came from a 'Murgan's Musings' column in an earlier issue of Palmtop magazine!

Compacting the clutter

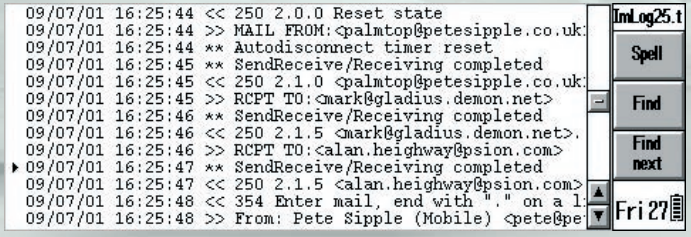
You may notice that some EPOC applications have a 'Compress' feature: Jotter, Agenda and Contacts being the obvious examples. This function is designed to recover space used up by the system when handling changed or deleted records. But what about the applications and databases that don't have a manual compression option? Over time, Data files in particular can get surprisingly bloated, and that's where **Compact** steps in. It scans files, folders or entire drives, compressing as it goes. After running its sweep, a report tells me where the clutter was removed from and how much space I've saved. Running this for the first time is a bit of an eye-opener, when you see just how much space has been taken up, especially if you use lots of different programs on your palmtop. Each time I run it, I recover more space than the program itself takes up, which has to be a good thing. Note that although the web site for Compact is in German, an English language version of the software is also available.

Taming text messages

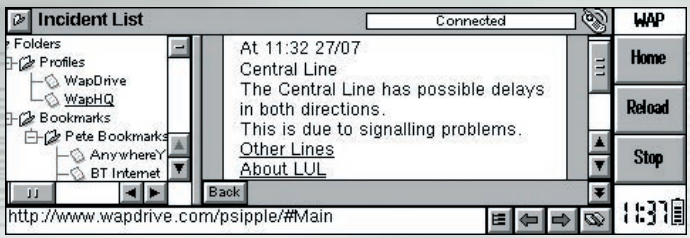
I make no bones about it, I'm a text-aholic—SMS text messaging is a great way of staying in touch with my mobile phone-owning friends. Typing text messages into a phone keypad is slow and tedious, so it's all now done on my Revo, thanks to **PhoneMan**. I can compose, read, store and file text messages using the classic Inbox/Outbox/Sent items arrangement found in Email, plus there are tools to manage my SIM card, ring tones and phone settings. It's much more powerful than the Revo's built-in Phone application and has become indispensable for daily use.



Text messaging with PhoneMan



The Symbian text editor in action



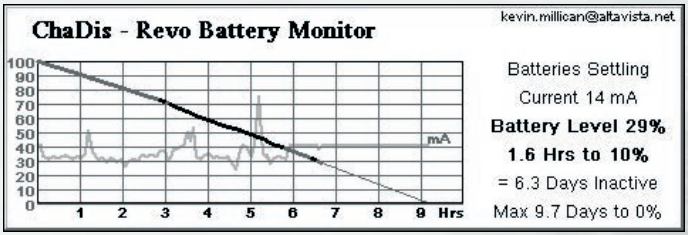
Psion's Wap Browser

A better text tool

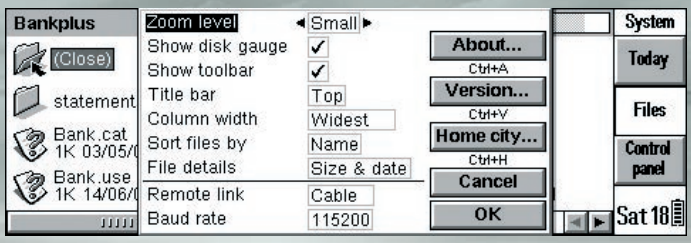
Also useful is the free **Symbian text editor**. Normally, to read a plain text file on a Psion Revo you need to import it into Word or view it (rather clumsily) using Web. Think of the Symbian text editor as EPOC's answer to Windows Notepad—it lets me view and change plain text files, as well as 'finding' specific strings of text. I can change the font used for viewing, control screen wrapping and, if Spell is installed from the Revo's PsiWin CD, even perform a spell check. It's also possible to open non-text files, to have a look at file content and perform a search.

Surfing

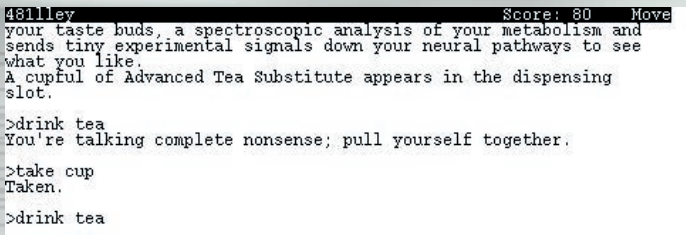
As my mobile phone has an infrared modem, I use the **Opera** web browser (see the review in this issue) to surf sites that require secure connections or use Javascript. There are times, however, when I find that (although much maligned in the general press) WAP comes into its own for collecting quick snippets of information, such as travel news and news headlines. With Psion's **Wap Browser** and its bookmark facility, it's easy to get information extremely quickly, which is essential when I'm on an expensive connection over a mobile phone.



Check out your Revo battery with ChaDis



Restoring preferences with Sysback



Thumbs up for the Hitch-Hiker's Guide

Current account

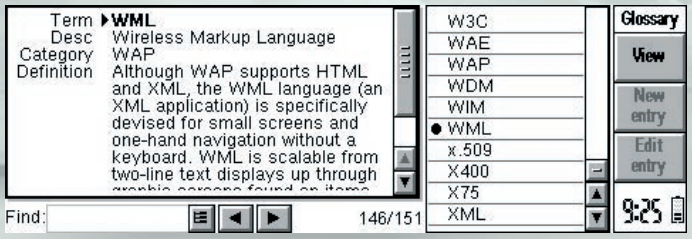
With the Series 5 family, battery management is a straightforward affair: a couple of disposable AA batteries and a small backup cell. The Revo family contains a built-in rechargeable battery with its own idiosyncrasies. Some people have experienced problems with their Revo batteries and, without a backup battery as such, a little extra care should be taken. **ChaDis**, a small, free application from Kevin Millican, allows me to see what kind of drain my battery undergoes and estimates the remaining time before the charge drops to the minimum required for proper operation. It also alerts me if I'm overcharging the Revo when it's on the docking station.

Setting it straight

Phil Spencer's **Sysback** restores my system settings after a reset. While experimenting with lots of software or doing development work, it's often a good idea for me to do a soft reset of my Revo (ensuring that I have a good backup first, of course). Resetting the machine trashes the basic settings, but this utility restores most of them to match my preferences.

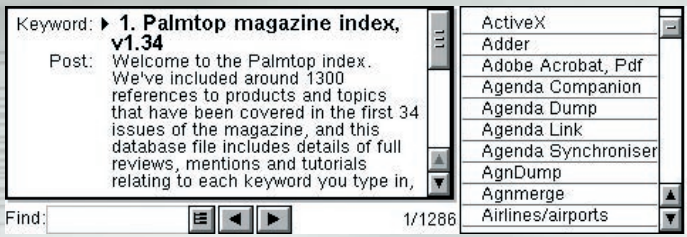
Fun and games

I'm not generally a big games player on a Psion. Apart from Cascade, the only game you'll find on my palmtop is the classic text adventure from Infocom, the **Hitch-Hiker's Guide to the Galaxy**. Following on from the radio and TV series, plus the inaccurately named 'trilogy' of five



Using a PocketInfo glossary

No Psion is complete (naturally) without a copy of the Palmtop magazine index!



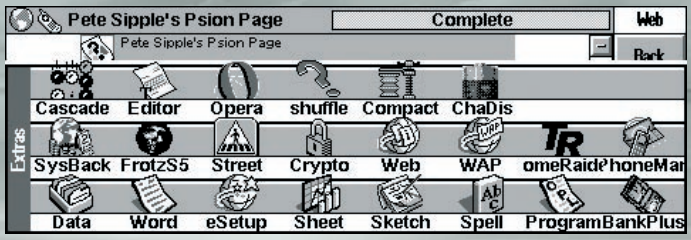
books produced by the now sadly departed Douglas Adams, this game requires you (Arthur Dent) to stroll around a starship on a mission for something more important than tea. Mind-numbingly obscure plotlines and surreal surroundings, plus the fact that I still can't get Marvin to help, mean that this is a game I return to whenever I hit a dull moment. To run this, I use the original Infocom Hitchhik.dat file and **Frotz**, the EPOC port of the Infocom games interpreter. If you're a fan, you *must* give this a try, and if you get stuck, look for the Invisiclues™.

PocketInfo and THE index

PocketInfo (now relocated back to its original home within 3-Lib) contains a huge collection of databases in Psion's Data format on a host of specialised topics. The databases are free and fully-searchable. Well worth a look to see if they cover your area of interest. Also, if you haven't already got the **Palmtop magazine index**, make sure you download our complimentary Data file to help you identify which Palmtop magazine issue contains the review or article you're looking for.

Psion's missing apps

Finally, moving from a Series 5mx to a Revo meant the loss of three applications that I often make use of: Spell, the OPL Program editor and Sketch. Fortunately, these can all be added for free from the various sources listed opposite.



Running out of room for more Extras

As you can imagine, my Revo Plus is now pretty full, and when you consider that I can also find my way around the streets of my home and work towns with **Street Planner** (see issue 32), keep my finances in order with my own **BankPlus** program (see issue 33) and search the **Internet Movie Database** offline with TomeRaider (see issue 34), cramming in more 'essentials' is getting to be a tight squeeze!

All of the applications mentioned can be run on the Revo/Revo Plus, Series 5mx and Series 7/netBook, apart from ChaDis, which by its very nature is intended for Revo/Revo Plus use only.

Availability

ChaDis - free from *www.kevin.millican.net/Home/ChaDis.htm*

Compact - free from *www.psionwelt.de/ralphsprenger/RSProgs.htm*

Crypto - free from *salvis.com/s5*

Frotz - free from *www.palmtime.com*

OPL editor - free from Psion, *www.psion.com/downloads*

PhoneMan - £15 from Zenobyte Ltd, *www.zenobyte.com*

PocketInfo - files available for free download from *3lib.ukonline.co.uk/pocketinfo*

Palmtop magazine index - free from *www.palmtop.co.uk/indices.htm*

Psion Wap browser - free with Revo Plus, or £20 from Psion, *www.psion.com/wap*

Sketch - free from Epocware, *www.epocware.com/sketch.html*

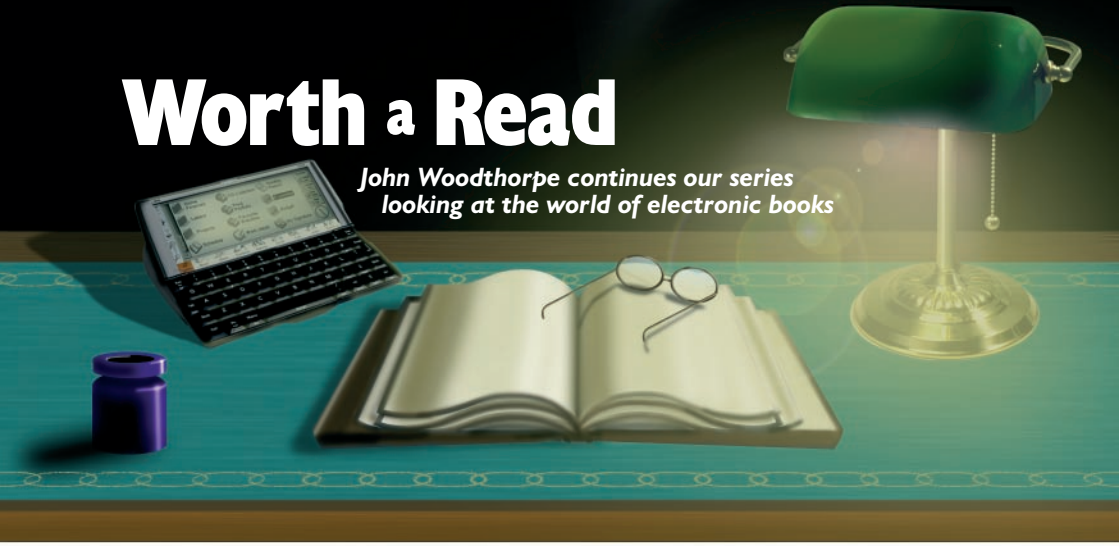
Spell - free from Psion, on PsiWin CD

Symbian Text Editor - free from *www.symbiandevnet.com/downloads/sdks/er5sdks.htm*

Sysback - free from *www.spencer.nildram.co.uk/sysback.htm*

Worth a Read

John Woodthorpe continues our series looking at the world of electronic books

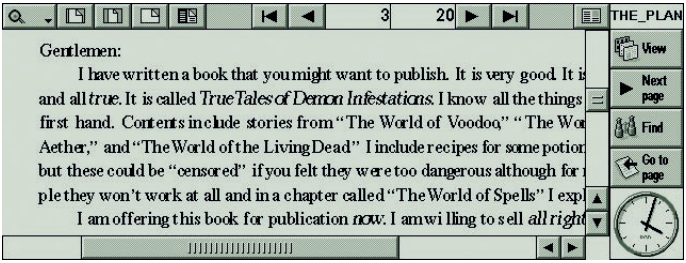


The world of electronic books is in a state of turmoil at the moment, and the chances are that Psion (and Palm) users are going to get squeezed as a result. Ultimately, all palmtops apart from Microsoft Pocket PCs may be denied access to much of the more modern fiction that is becoming available. The problem goes under the name of Digital Rights Management, which is designed to prevent the piracy of commercial ebooks.

Part of the problem stems indirectly from the high profile ebooks published by Stephen King. 'Riding the Bullet' was sold in a variety of electronic formats, by downloading it from a secure site after providing a credit card number. It wasn't accessible directly with a Psion, but users of a whole range of other desktop and palmtop machines could read it. Despite the fact that it only cost $1, the security on it was cracked within hours, and decrypted versions were available from various 'warez' sites and newsgroups. King's next release was 'The Plant', made available as a series of unprotected Adobe Acrobat (PDF) files on a trust system, whereby readers paid a small sum and were encouraged to pass the file on to others.

Since then, the number of pirated ebooks has increased dramatically, and a recent survey has discovered almost 7,500 copyrighted books available for *free* download. Some are on web sites and newsgroups, but most are distributed by IRC and peer-to peer file sharing systems like Gnutella. The most regularly pirated authors are King himself, JK Rowling, John Grisham, Terry Pratchett, Tom Clancy and Douglas Adams. Some of these are merely scanned in from the paper originals, while others are cracked versions of the commercial digital releases.

Another problem was highlighted in July, by a Russian named Dmitri Skylarov. A security expert working for a Russian software company, he infuriated Adobe by pointing out the failings in the security methods they use in the encryption of PDF files designed for their desktop ebook reader. While visiting California to give a conference presentation on this, he was arrested for infringing the Digital Millen-



Stephen King's 'The Plant' running in PDF+

nium Copyright Act (DCMA) in the US. This controversial legislation affords stiff penalties for circumventing copy protection. The case continues, with Skylarov released on bail, but unable to leave the US and facing a maximum of five years in prison and a fine of $500,000.

The upshot of events like this is that there is an increasing awareness of, and interest in, ebook security and encryption. Sadly, that means that most vendors are concentrating on desktop formats, and limiting themselves to the Adobe e-Book Reader (ironically the one that Skylarov cracked) and the Microsoft Reader. Both use proprietary file formats and are effectively limited to Windows machines, with the Adobe program also working on Macs. The Adobe e-Book Reader uses PDF files, but they cannot be opened with any of the standard PDF readers, requiring separate software to access them. Both of the Windows applications also require Internet Explorer to be installed, and the Microsoft Reader will not open commercial texts until you register it and create a 'Passport' account with Microsoft. Pocket PC machines also have appropriate reader software and can handle Microsoft Reader's '.lit' format.

An example of the direction things are moving in can be seen in the recent announcement that Penguin is to launch an ebook publishing programme, with a list of titles drawn from its entire catalogue. With enormous imagination, they're calling this programme 'ePenguin', and plan to launch it with over 200 titles, sold for 20 percent less than the paper versions. The press release says: "Lightning Source Inc. will provide Penguin with a complete digital fulfilment package from the digitisation of content to secure delivery of ePenguins to the consumer. ePenguins will be published initially in Microsoft Reader and Adobe Acrobat eBook Reader, the most accessible and user-friendly software available." This suggests that all the books will be encrypted such that Psion and Palm users will be unable to make use of them.

Even if the ebook world indeed continues to move in this direction, there are still a few possibilities for Psion users. One is to keep an eye on *www.penguin.co.uk/epenguin* and politely ask Penguin to consider releasing some of their catalogue in a format that can be read on a Psion, such as the Palm DOC format. If that happens, we'll still need a DOC reader that can handle encrypted texts, or for mBrainSoftware's PDF+ to be modified to handle encrypted Adobe e-Book Reader files. I suspect that the chances of getting texts to read on all non-Microsoft palmtops may become fairly slim, but they'll be zero if we don't contact a few people and ask them to include us in their plans.

Hot tips for hot games

In this ongoing series, we invite a game expert to share some winning tips and strategies

Golf, tips by Steve Marchwood

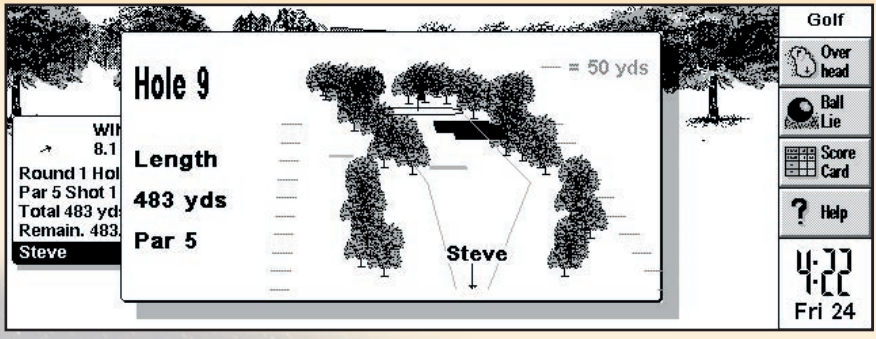
Originally released as Series 5 Golf, as part of the Series 5 Games Arcade pack, this has been patched to run properly on the Series 5mx and also rewritten by the author, Palmtop's own Steve Litchfield, as Fairway, to run on the Psion Revo—see *3lib.ukonline.co.uk/fairway.htm* for details. There is no Series 7/netBook version.

Here are some useful tips on how to get the most from this absorbing game:

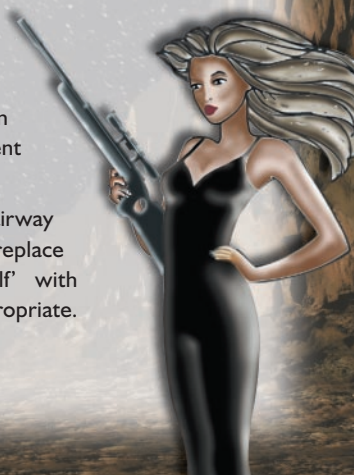
- Read the help screens. They contain the entire contents of the original Psion manual and much more besides.
- When looking at a hole on the 3D 'Overhead' view, look for the 50 yard marker lines up each side of the hole. These give you a guide to the distance of hazards such as water, bunkers or a sharp dog-leg in the course.
- Remember when planning a shot that the stated maximum distance of a club includes both length in the air and on the ground. It's no use playing a '2 iron' to try to achieve a distance of 200 yds when you can see a hazard at 180 yds, right in the ball's landing zone.
- Remember also that a club's stated maximum distance is only achieved if you time the ball perfectly, i.e. no 'Hook' or 'Slice'. Mis-timing the shot will reduce the distance the ball will travel. This can occasionally be useful when you know for a fact that you've overhit the shot and the power bar is still reducing. A bit of quick thinking and a deliberate hook or slice may get you out of trouble here, avoiding an out of bounds or a dip in the water.
- As mentioned in the manual, use overswing with caution. If you're very good at timing the ball, this can be a good way to turn a par 5 into an 'eagle' opportunity, but do practice a lot first!
- When presented with the leaderboard before each hole, remember that [Esc] gets rid of it and saves having to page through all twenty-odd players.

Availability

Series 5 Golf is available at £30 from *www.psion.com* (follow links to their Software store). The Series 5mx 'patch' is free, from *3lib.ukonline.co.uk/arcadesc.htm*. Fairway for Revo costs £12 from *3lib.ukonline.co.uk/fairway.htm*.



- Note the non-linearity of the putting power bar. Use the 2 yd graduations as your guide, as usual. Try to slightly overhit each putt—there's no point in being on the perfect line and six inches short, whereas if you have the line right and overhit the putt there's every chance it will drop in as it goes over the hole.
- If you make a dreadful mistake on a hole, closing the application down before holing out will save the game only as far as the end of the previous hole, giving you a chance to 'Restore' and play the current hole number again.
- Noting that all holes in the game are entirely randomly designed. If you come up against a monster hole that appears unplayable then you can close the program down and 'Restore', hopefully to find a kinder alternative.
- Don't worry if, instead of restoring your previously saved tournament, you choose to play a new game (perhaps letting a friend have a round) and you then close the program down by mistake, saving the new game instead. Go into \System\Apps\Golf, delete golf.ini and rename golf.bak to golf.ini. Start the game again, choose 'Restore' and you're back in the tournament hunt!
- If playing Fairway instead, replace the name 'golf' with 'fairway', as appropriate.



On the NET

Our regular look at what's happening online, and where to point your browser

by Pete Sipple

Home Alone Too?

Revoworld, probably the best-known site for Revo owners, now has some company. **Revo at Home** is dedicated to the "everyday Revo owner". I've been keeping a beady eye on this site over the past few months, waiting until the content increased to a suitable level for recommendation. It's currently still building its pages, but even now it's well worth a good look around. Nice features include a snappy news section, a collection of tips and articles, reviews of accessories (including Palmtop magazine), a competition to win a Revo case (in case you have no luck with Palmtop's competitions), and an automatic email service to let you know when the content changes. *www.revoathome.co.uk*.

Monkey business

Silly name of the month award goes to the new site dedicated to Revo game players, **Revo Monkey**. Nothing to do with software house Great Ape, this site lists freeware and shareware games, giving them marks out of 10. Swing on over to *www.geocities.com/revo_monkey/banana.html*.

Found the file finder

It's back. **PocketInfo**, the definitive source for databases and spreadsheets in EPOC-readable format, vanished a few weeks ago, and its original address has been hijacked by cyber-terrorists (really). It's now back online and can be found at the 3Lib site. If you have a web site linking to PocketInfo, please change it to *3lib.ukonline.co.uk/pocketinfo*. Incidentally, if you can't find what you're looking for at PocketInfo, another great resource for Psion-readable databases, documents and images is **Filegrabber** at *web.ukonline.co.uk/shaun.mcgill*, which has nearly 700 files available for free download.

One careful owner...

Wanted: home for a tired Series 5. When moving up to a new machine, spare a thought for your old hardware and find it a good retirement job...

"OK, I now have an MC218. I think I'll keep my Series 5 as a backup. It occurs to me that it is quite a powerful computer in a nice form factor with a decent screen. There has to be something this could be doing for me. But I can't think what. Really over-the-top Lego Mindstorms controller? Central heating control with built in AI and TCP/IP remote control? Computer in the bathroom (not for any use, just so every room has one)?" (anon)

"What about a mini web server? I've seen it done on a Revo." (terence)

"A doorstop?" (gareth)

"No. I think all of us still are stopping our doors with good old ZX81s" (Joerg)

It's an invasion!!!

With Diamond Makos selling very cheaply in the US at the moment, there's a whole load of new visitors to the newsgroups, but just what is the correct netiquette when discussing the hardware?

"It appears that many of us yanks are now starting to join your Psion newsgroups, due to the recent dumping by SonicBlue of low cost, Chinese-made Revo Pluses, rebadged as the Diamond Mako. So, as we try to intelligently join your community, I notice that we type and bumble a line and a half describing "my Psion Revo Plus / rebadged Diamond Mako..." etc. Do we really need to do this? I would just like to refer to mine as a "Psion Revo Plus" and acknowledge its true bloodline, or just "Diamond Mako", but not both." (anon)

"I call my Mako 'My Psion' in normal conversation. As far as I can tell, all SonicBlue did was silkscreen its name on the front - when I booted mine even the background said 'Revo'." (tdixon)

"I call mine Palm, that really screws its day up and fills it full of insecurities! Seriously - why ask, just call it one or the other. There. I've made a high-level decision for everyone! Mark, a Revo+ (a.k.a Miamond Dako) owner." (mambros2)

"If you call yours a Diamond Mako we know you're a cheapskate. If you call yours a Revo Plus we know you are loyal and paid full price." (randalmclaughlin)

"I like to call mine Sheryl... but that's just me." (badvok)

For a list of sites listed in On The Net, or to suggest a site, go to *www.petesipple.co.uk/onthenet.html*.

Hints & Tips

Every item published in this section wins the author TWO free issues added to their subscription!

Message Suite lingers on

Until recently, I've had major problems with infrared on my Series 7, with it giving messages such as 'Unable to connect'. When upgrading from my old Series 5 'Classic', I simply inserted my old CompactFlash disk into the new computer. Although I tried to have a clear out in the CF's \System folder, I missed IRDA.PRT and IRCOMM.CSY in the folder \System\Libs, which apparently conflict with the newer version of EPOC. Deleting these two files solved all my problems.

John Stevens, Reading, Berkshire

Contacts without a touch screen

I like to use my Psion almost exclusively with the keyboard, starting programs by just pressing [Enter] on the icon of the appropriate document. Unfortunately, you can't normally work this way with Contacts. But I've found an easy way to prepare a System screen link to the Contacts application.

Open up a new Program document and type in:

```
INCLUDE "System.oxh"
PROC Contacts:
RunApp&:("Contacts","","",0)
ENDP
```

This will result in a 'Contacts.opo' file which can be renamed to anything you like (noting that due to a bug in OPL the file must have an extension) and copied into common folders that you frequent.

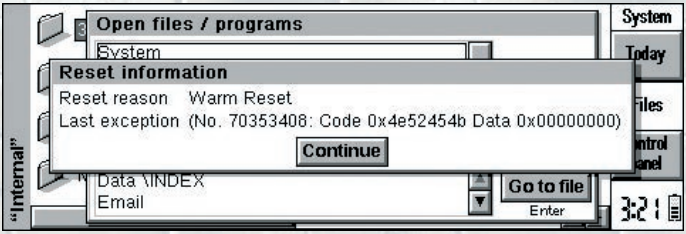
Gyorgy Takacs, Budapest, HUNGARY

Last reset

If you're ever plagued by phantom resets, there's a way to find their cause, or at least EPOC's official explanation for them. Go to 'List open files...' on the System screen and press [Ctrl]+[Fn]+[R]. A 'secret' dialog box will display the reason for the last reset, together with some technical register information that's probably only of use when reporting a reset to a third party program developer.

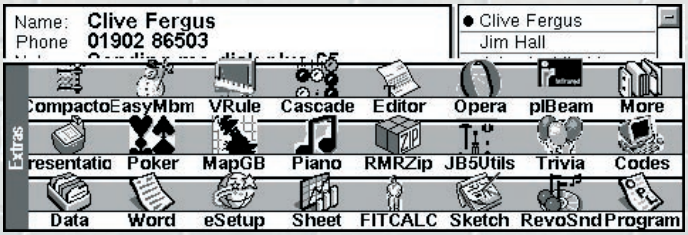
Sylvain Michel, Eyguieres, FRANCE

Launching Contacts using just the keyboard



The 'secret' reset dialog

[Ctrl] + [Contacts] = Data, [Ctrl] + [Agenda] = Word, etc.



A better way...

The method you describe in 'Modifying Data fields' in issue 34's Q&A seems a bit awkward and liable to damage entries containing multi-line text. A better way of altering field characteristics is to:

1. 'Create new file' from within the old one (thereby initialising it with the original field names and characteristics).
2. Edit/delete/add the fields as you would like them, making sure to keep the final label names and order the same. (Note that you can happily change the fields around at this stage because there's no data content to lose.)
3. 'Merge in' the contents of the old Data file.

Martin Redfern, Maidstone, Kent

Extra, extras

It's possible to open at least some of the programs on the Extras Bar without going through the laborious procedure of tapping the Extras icon and then the icon for the program you want. To access any of the icons on the *bottom row* (only) of the Extras screen, simply hold down [Ctrl] and tap the application icon *beneath* that of the one required. You can of course rearrange the positions of any of the icons on the Extras bar (by tapping on the grey vertical bar on the left of the screen), which effectively allows you to assign any eight applications in this way—10 if you're using a Series 7 or netBook.

Shaun McDowall, Whitchurch, Bristol

Q&A

Get your Psion and EPOC-related questions answered by our editorial panel...

Three in one

Q Three questions in one, if I may, from an ecstatic Series 7 user. In issue 32, on page 13, you reviewed Reclaim, a program designed to compact Psion data files. Is it really needed? Doesn't the Psion Series 7 automatically compact (or compress) Agenda, Data and Jotter files every so often? If not, then what is happening when, as one is accessing one of these files, a small rectangular window suddenly opens and the words 'Compressing to save memory' appear?

In addition, what are the pros and cons of battery versus AC power when using the Series 7? In particular, does it do any harm to leave it on mains power for days on end, long after the battery has been fully topped up?

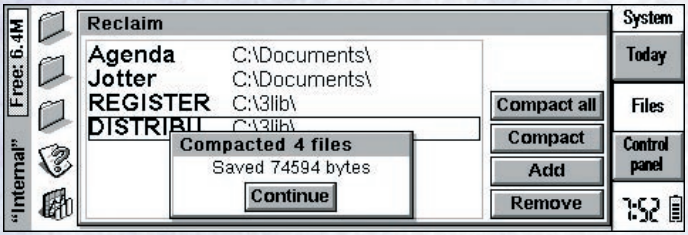
Finally, I am mystified about the selection of font types across the Psion Series 7 applications. It appears that the full range of fonts is available in some applications, but not in others.

Larry Westphal, Swarthmore, Pennsylvania, USA

A **Reclaim's main use is in being able to compress files when you need more memory, rather than having to wait until each application decides that it's time for a cleanout (*usually* when the wasted space reaches around 50%). On a heavily used palmtop, a system-wide reclaiming of wasted database space can easily claw back half a megabyte or more. (Reclaim is available as freeware from *www.freepoc.de*).**

The Series 7 uses a Lithium-Ion battery, meaning that it positively *likes* being kept fully charged. 'Deep cycling' it regularly (i.e. fully discharging the battery before recharging) is the thing most likely to reduce its lifetime.

Which fonts are available in which application does vary somewhat. The short answer is that it's up to the writer of each application as to which fonts (built-in or installed by PsiWin) are shown as available. In addition to this, font selections are usually influenced



Using Reclaim to force all your data-based files to be compacted

by the current printer type (set up globally or in an application). You can of course use the 'Printer via PC' capability to add more printable fonts to your arsenal, or the new FontMachine software (*www.mbrainsoftware.com*) to add both screen and printer fonts.

Font handling tends to be a rather complex issue on any computer platform. We'll be running a detailed feature on this very subject in the next issue of Palmtop.

Auto on/off failure

Q My Psion 5mx will no longer turn on and off when the case is opened and closed. Is this one of the fragile points you talked about in issue 33? Is there a known fix?

Louise Hawley, Duluth, Minnesota, USA

A **This is another known weak point of the 5mx. As the keyboard slides back when the casing is closed, a tab on its bottom presses into a recessed microswitch in the main casing. Unfortunately, being near the bottom of the unit has the disadvantage of being open to the dust that seems to collect around even the most well-ordered desk, and it's only a matter of time before enough has built up to interfere with the switch's operation.**

You could try blowing into the recess to try to dislodge whatever's blocking the microswitch, but if that doesn't work then the best advice if the 5mx is out of warranty is just to get used to turning it off manually.

Corrupt CF

Q Recently after (fortunately) backing up my Series 5 'Classic' to my PC, I switched to the 'D' drive on the System screen, only to see the message 'Disk corrupt'. Other disks seem fine, so the handheld itself is OK, but the

The plastic tab and recessed microswitch that operate the Series 5mx's auto on/off

problem disk no longer appears at all, so I can't even reformat it. Help!

Russell Shaw, Tauranga, NEW ZEALAND

A **The usual causes of this sort of CF calamity are either a low battery condition or battery glitch while working on the disk, or an electronic failure in the disk itself.**

Thankfully, CF corruption is quite rare, and even when it does occur a quick Format followed by a PsiWin Restore is usually enough to get back to normal.

If your Psion won't even 'see' the disk then you can try to format it in a laptop or other computer, using a CF-to-PC Card adaptor or a CF disk drive. Such a format should be compatible with EPOC (see also our CF feature in issue 24). Alternatively, try Essential Disk Utilities (featured in issue 33), which can fix some disk problems. Failing that, the CF has probably died completely, so you'll need to contact the supplier for repair or replacement.

AOL, CompuServe and MSN

Q Although the Palmtop magazine articles on how to configure the Web and Email applications were detailed and informative, they didn't cover how to set things up specifically for CompuServe or MSN, both of which are as widely used as Freeserve (which *was* covered). Setting up CompuServe proved to be far from straightforward (a special script was required) but once completed it worked fine. MSN is a different matter, as I can't access its email mailbox at all.

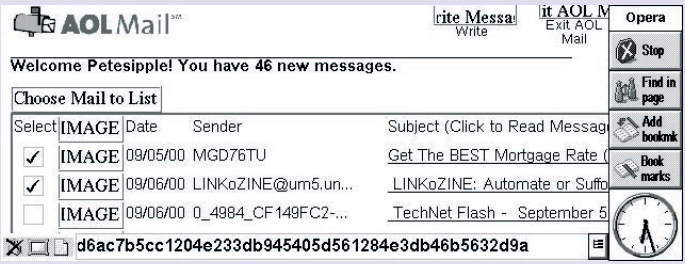
Neil Lunam, Thingwall, The Wirral

Q I have an AOL account that I need to access using my 5mx. Can you help with the settings I need?

David Rickwood, Colchester, Essex

A **It's a pity that the Internet Service Providers (ISPs) that most people see publicised (AOL, CompuServe and MSN) are the very ones which aren't 'normal' ISPs at all. Each has proprietary elements which won't work easily with Psion palmtops, as the latter stick fairly rigidly to Internet standards.**

Freeserve was covered in the article because it's a fairly typical ISP in every respect: once you've learnt how to set it up on your Series 5mx you'll be able to copy virtually all the settings for 99% of other ISPs around the world—*except* AOL, CompuServe and MSN, of course. Unless you need their proprietary content and services, Psion users may find it more appropriate to go else-



You can't access AOL Mail with the Psion Email software, but you can with the Opera web browser

where. Note that it's possible to access AOL Mail using the Opera web browser rather than the usual Email program.

Removing forced page breaks

Q I keep a Curriculum Vitae in Word on my Psion Series 7, which I fax directly to prospective employers from time to time. As my CV needs regular updating, I need to add extra lines of text. But having inserted some page breaks in appropriate places, there seems to be no way of deleting them again, with the result that the CV is now fragmented over far too many pages!

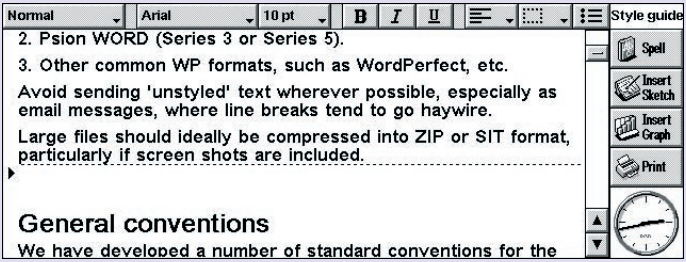
Stephen Wells, Manchester

A **At first glance, Word's handling of page breaks does seem a little hit and miss. It does, however, follow a few straightforward (though somewhat illogical) rules:**

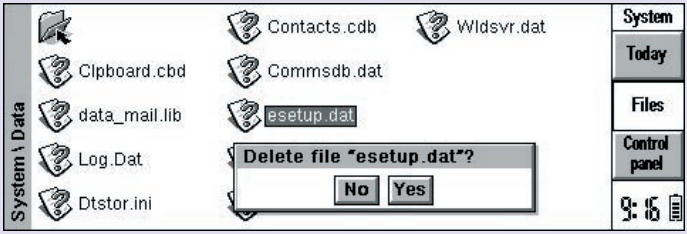
1. **Page breaks will not be shown in a document until you insert at least one forced page break. All page breaks (whether natural or forced) will then appear throughout the document, as horizontal dashed lines. These will then remain in the document, even if you subsequently remove all forced page breaks.**
2. **Once they appear in a document, there is no way to distinguish between a forced page break and a natural one, except that natural breaks cannot of course be deleted.**
3. **Forced page breaks can be deleted as necessary, by moving the cursor to the beginning of the line directly below the break and hitting the [Del] key. Strangely though, the dashed line will only disappear immediately if there is already a line break immediately between the last line of preceding text and the forced page break. Otherwise, the dotted line will not disappear until you select 'Tools | Paginate', which forces the document to repaginate accordingly.**

The above rules make it very cumbersome to go through an entire document and strip out the forced page breaks. The best way to do it is to start at the beginning of the text, using the [Del] key as described above to (try to) remove unwanted breaks as you go, using the 'Paginate' command to refresh the document view when complete.

If you use forced page breaks regularly, you may wish to get into the habit of pressing [Enter] just before each one, so they can easily be identified as outlined in point 3 above.



Line breaks in Word—note the horizontal dashed line across the screen.



Deleting esetup.dat to help prevent eSetup crashes

More infrared problems

Q I have had an Ericsson MC218 for just over a year now but am still having trouble with its infrared feature. I now want to back up my MC218 to a laptop computer via their infrared ports, having previously been using a cable. I find that the laptop always senses the presence of the MC218, but won't 'connect' or perform any file transfer functions. I'm also having problems communicating with infrared mobile phones (the Ericsson A1018s and the newer Siemens S35i). How can I test the correct functioning of the MC218's infrared and get things working?

Les Bowles, Hoddesdon, Hertfordshire

A **There are several things you can do to check out your infrared. Perhaps a friend with another EPOC palmtop, to whom you could try to beam a document? Or perhaps you've got access to an infrared printer? Trying to communicate with an infrared modem-equipped mobile phone is also normally a good idea, but this does make things more complicated and you should get some working settings from other users of the same phone before concluding that something's physically broken.**

Backing up to a PC laptop should be possible, provided that the version of Windows used supports the IrCOMM protocol (Windows 2000 apparently doesn't, by default), that PsiWin has been correctly set up to use the infrared 'virtual' serial port, and that 'Tools | Remote link' is set to 'Infrared' on the MC218.

If you're still having problems communicating with the outside world, try a soft reset, just in case something's locked up within EPOC.

eSetup crash

Q When I go into eSetup on my Revo I get the following error message: 'Program closed, Program eSetup, Reason code KERN-EXEC, Reason number 3'. A similar thing happens when trying to go into Web, and I'm at a dead loss as to how to proceed.

Keith Murray, Southgate, London

A **This is normally due to a corrupt 'esetup.dat' file. Make sure that your \System folder is shown (in 'Tools | Preferences') on the System screen, navigate into \System\Data and delete esetup.dat. You should now be able to use both applications.**

Persistent emails

Q I have had difficulties using the UK Online ISP for my email and thought I should warn others. The problem is that after I have read and deleted email messages on my Series 5mx, the next time I check online the deleted messages frequently reappear in my POP3 inbox. This can happen as many as five times, but generally the messages stay deleted once they are about a week old. I connect via a Psion 56k Travel Modem.

UK Online is of no use, simply stating that they are not aware of any Psion users with the same problems. Which UK-based ISP would you recommend?

Alec Stansfield, Oxford

A **The problem's nothing to do with UK Online, of that you can be sure. We use this ISP's mail all the time, accessing our mailbox from Psion, Palm, PC and via Internet cafes, and have never once seen this problem.**

There are two possibilities. Firstly, you may not always be using the POP3 mail system properly. Once you're connected, the idea is to 'Move to inbox' any waiting messages. This downloads and then deletes the copies on the server. The thing to watch is that you 'Close' the mailbox properly before disconnecting from the Internet. Failing to do so can result in the mail server disregarding the deletion commands.

If you're sure that you're doing all the right things, perhaps there's a problem with the Travel Modem hanging up the line prematurely, before the mailbox has been closed? It's worth trying a different modem, just in case.

PsiWin vs EPOC Connect

Q I have already got a Psion Series 5 'Classic', with PsiWin 2.2. I am considering purchasing an Ericsson MC218 and bequeathing the Psion to my wife. I understand from a previous back issue that EPOC Connect (which ships with the MC218) and PsiWin don't get along together very well, so would propose to uninstall PsiWin and install EPOC Connect in its place. Will the old Psion Series 5 still synchronize with Outlook 98 and will I be able to transfer files backwards and forwards?

We also have PsiWin 2.3 installed at work—will the new MC218 work with this?

Gordon.Thompson, Manchester

A **It's always best to get the very latest versions of communications software, such as PsiWin. In fact, the versions you mention and EPOC Connect are all out of date—the latest, free, release version is PsiWin 2.3.3. We can see no reason why this shouldn't work with both the Series 5 and the Ericsson MC218, although of course you should hang on to your Ericsson CD as it contains a number of extra applications.**

Musings...

Debbie Barham takes a satirical look at the future of 'portable' computing

The PDA, so people keep telling me, is dead. Not my particular PDA (although that *is* dead, following a tragic and frankly avoidable incident involving a washing machine, a pair of cargo-pants with extra-capacious pockets and blatant stupidity on the part of yours truly). But PDAs as a general concept—much as one might proclaim that "Socialism is dead", or "traditional media is dead", or indeed, "rap music is dead" (but the latter, sadly, would just be wishful thinking).

And looking around, you can see their point. PDAs have saturated the market. Everywhere you go: coffee shops, buses, park benches—you're guaranteed to spot at least one palmtop computer user, squinting at his screen and making little staccato jabs with a stylus in an attempt to contact his online share-dealing site and rid himself of all his plummeting PDA stock. Manufacturers go to such ever-greater lengths to pack in more features, so instead of getting progressively smaller, palmtops are now having to get progressively bigger again in order to persuade people to 'upgrade', to the point where they no longer comply with the Trades Descriptions Act's definition of a palmtop, unless one is blessed with palms the size of King Kong's (who didn't, to my knowledge, need a handheld PC to organise his schedule: "Things To Do: 1. Uproot skyscraper. 2. Terrorise screaming damsel. 3. Wax chest hair. 4. Crush entire passenger train between thumb and forefinger...")

The same thing happened with WAP phones. Originally touted as a marvellous new way of accessing cut-down web sites from your dinky little mobile phone, developers finally twigged that people weren't going to buy it until the cut-down web sites got flashier, the screen for viewing them on was larger and the access speed increased. And then some bright spark had the idea of dropping the stigmatised 'WAP' name and calling it something funkier (such as 'The Internet'), at which point they were all back where they started.

So what will replace the palmtop? The key word to bandy around, apparently, is 'nanotechnology'. Nanotechnology is, in fact, the science of very, very small things. Single atoms. Microscopic distances. AOL subscribers' brain cells. The size of the print you get on the Terms and Conditions of your mobile phone contract, and so forth. And thanks to the small wonders of nanotechnology, we will soon be wandering around with miniature computers and

personal organisers embedded beneath our skin. We're not talking about bodily-inserted computers straight away, but the next step on from palmtops, I'm reliably informed, is 'smart' clothes.

Wearable Computing is decidedly old hat (old hat with new tech inside it, perhaps, but still passé), at least in its current form. You know, the form that advertises itself as a 'Wrist PC' when, in fact, it's just an ordinary palmtop with a Swatch glued onto the back.

The other popular image of wearable computing is some kind of digital visor, operated by voice recognition. Equally flawed, as the user risks walking into large immovable objects while negotiating his way through a tricky file structure in Windows Explorer. Given the current standard of voice recognition software, he also risks being mistaken for an escaped nutter as he weaves his way drunkenly through nonexistent crowds, incessantly hollering "Go back! Go back! Stop! Quit! HELP!" to some imaginary demon.

Hence the need for an alternative: clothes with circuitry literally woven into the fibres. This also has the major advantage that it no longer matters if I wash my 501s with my Series 5 still inside them. Not only will these 'smart' garments take care of all our personal-organiser needs, they'll also knock the socks, quite literally, off traditional clothing by using sensors embedded in the fabric to warn us of impending 'errors'. For instance, when we are getting too hot (in response to which the pores of the garment will automatically expand, permitting more airflow), in danger of catching a chill (whereby the pores will contract), or overstretching the garment (in which case your Lycra leggings would shriek "Oi, go easy on the chocolate...")

But inevitably, there will be drawbacks. What's the point of having my computer embedded in, say, my big woolly sweater if I want to use it on a hot summer day? (Forget, for a moment, the British climate, as by the time this technology is perfected, global warming should have raised our average summer temperature *above* sub-zero levels).

And so to the final technological step, the implant. At least one major player in the mobile computing market is already working on some kind of 'ear stud' device, linked to a network of biometric bodily sensors to constantly monitor not just our appointments, contacts and suchlike, but also our health. Feeling a bit peeky? Without lifting a finger, the appliance instantly fires off an email to your wired-up doctor, along with the relevant medical statistics. This could have some very useful applications: the minute my blood-alcohol level rose above, say, five times the legal limit, it could automatically contact my local taxi firm, informing them of my address (as by that time I'm unlikely to recall it myself).

So, perhaps the recent downturn in the fortunes of PDA manufacturers isn't so surprising. But rumours of the palmtop's death have been greatly exaggerated. It isn't dead, it's just taking the next step up the evolutionary ladder.

Debbie Barham (deb@joke-shop.com) writes regularly for the BBC, the Sun and the London Evening Standard. She is currently working on a cure for gadget-addiction and a new Carlton TV sitcom.